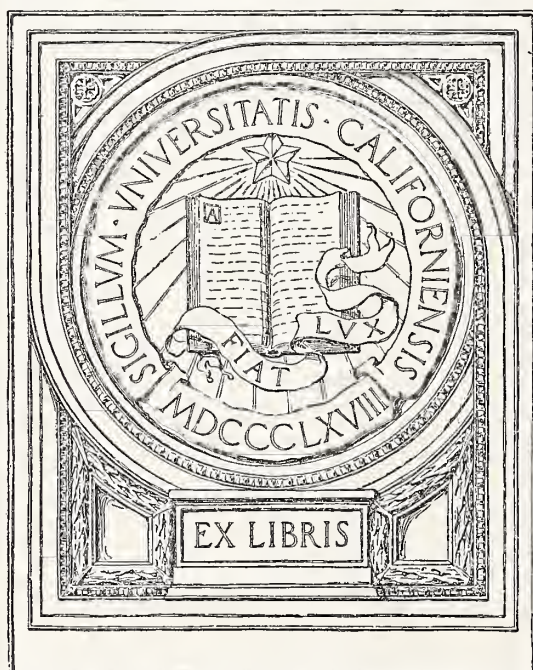
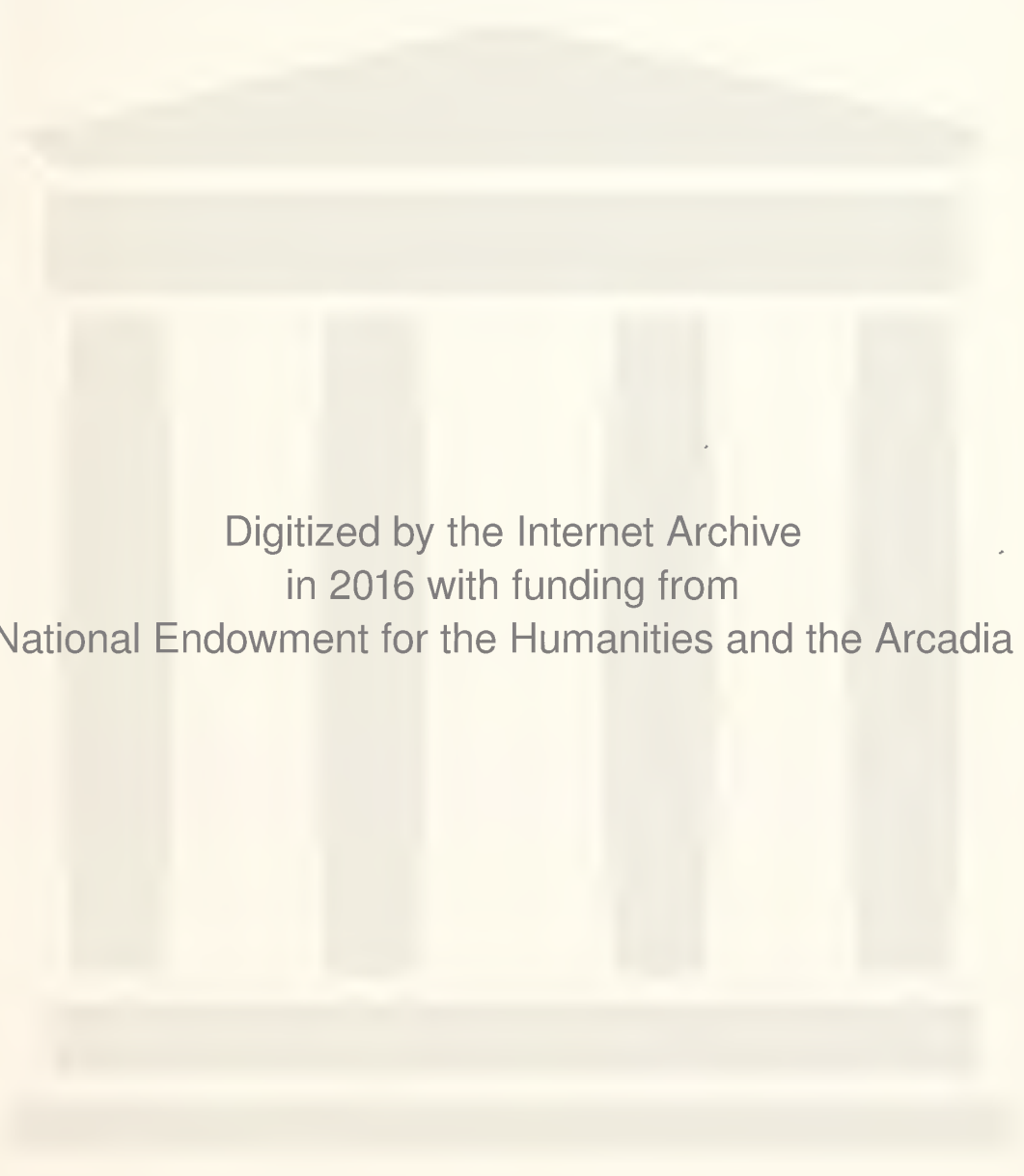


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THE OCULAR MANIFESTATIONS OF INTRACRANIAL PATHOLOGY

EDMUND B. SPAETH, M. D.*

It is not an accident that such a relatively large number of men, who start as neurologists, become ophthalmologists; nor the opposite, though less common, that men primarily interested in ophthalmology should become full-time neurologists. The specialties of the two are closely allied in much central nervous system pathology extending from the cervical spine and cervical sympathetic system, upwards. This includes the organic and the functional sides of neurology and of neuropsychiatry. Ophthalmology should bear the same relationship to general medicine as it does to neurology and neuropsychiatry. The neurosurgeon would be groping in the dark were it not for the perimeter and the ophthalmoscope; so also, though to a lesser degree, the internist.

Much could be told which would be interesting historically in the cordial relationships which have existed for years between the neurologists and the ophthalmologists, but the presentation today cannot cover anything except a bare outline of the symptomatology of central nervous system pathology as manifested by ocular symptomatology.

The examination of the ophthalmologist may at times seem to be of but little value in a given case, because no pathology may be found in the ophthalmic realm. Actually, negative findings are as important and as significant as clean clear-cut positive findings.

The value of an ocular examination, when positive,

needs no defense, for ophthalmological findings when they appear in any case cannot be dismissed unanswered. The diagnosis of the intracranial situation must fit to the eye findings as they appear. These are positive and factual. Whatever they happen to be, their objectivity is of greatest significance.

In an ophthalmological study of possible intracranial pathology, the fundi oculi are of greatest importance. The optic nerves with their perineural vaginal sheaths of meninges are embryologically, functionally, and anatomically so closely connected with the brain that they become a most important indicator for intracranially placed pathology. The retinal vessels are essentially end arteries, and are of an arteriolar size, and the magnification that one obtains with the ophthalmoscope in examining them does not change that factor. Hypersensitive and sclerotic retinopathy, when it is present, should be picked up here without fail.

The fields of vision are, from a diagnostic standpoint, unparalleled in medicine. If one could take the central nervous systems from the orbit at its apex, back through the prechiasmal portions of the geniculate bodies and their overlying temporal lobes, continue backwards through the geniculocalcarine pathways as they lie in the internal capsules, and back into the occipital lobe, and then slice this brain into serial sections; one could compare each serial section with characteristic fields of vision peculiar to the section being considered, and diagnostic of pathology in that section.

* The Graduate School of Medicine, University of Pennsylvania, and Boothbay Harbor, Maine.

The findings of the fields of vision only apply to supratentorial pathology. Infratentorial pathology cannot affect the visual pathways except through indirect pressure. In such instances, other peripheral neurologic signs and symptoms will give the fields of vision their true value. These rather unusual cases and rare instances should never be confusing.

The ocular muscles are next of importance. They bear a similar relationship to the diagnosis of infratentorial pathology as do the fields of vision bear a significant relationship to supratentorial pathology. There is one great exception, however, which must not be forgotten. The oculomotor nerves as they ascend from the infratentorial regions to the apex of the orbits lie in the middle fossae in close contact with the chiasm, the tips of the petrous pyramids, the cavernous sinus, and with that group of blood vessels which form the Circle of Willis. In the diagnosis of intracranial aneurysms in this region, the state of the oculomotor system, and changes in the oculomotor system have an equal importance with changes in the fields of vision, and of the fundi.

Pathological changes in the oculomotor system assume an even more extensive localizing value when one remembers, first, that one can study the supranuclear origin of binocular vision; second, the nuclear origin of oculomotor changes which will be manifest in the periphery; and third, the infranuclear changes as intracranial pathology affects the third, the fourth, and the sixth cranial nerves after they have left the brain stem and as they lie in the interpeduncular spaces, at the tip of the petrous pyramids, and as they pass through the cavernous sinus into the apex of the orbits. The signs of supranuclear disturbances in binocular single vision are as definite an entity as are those signs which appear from nuclear pathology involving the oculomotor nuclei, and both of these are quite different from those changes which result from infranuclear extramedullary extracranial pathology. Actually, through a knowledge of neuroanatomy one can break up and differentiate the symptomatology of nuclear from infranuclear pathology as this exists in the brain stem. Multiple sclerosis and some of the other diseases of progressive degeneration, hereditary and acquired, have been stern teachers in compelling the differential diagnosis of such possibilities.

The iris is also of great importance. This is natural, because with the sphincter pupillae, with its third nerve innervation and the third nerve reflex arc, one has the ability to study that separately from the pathways of the visual fibers. The dilator fibers of the iris have a sympathetic innervation, and its reflex arc (which is quite different from the efferent pathway of the third reflex arc) enables us to study the sympathetic nervous system at its origin in the cervical cord, throughout the cervical ganglion, in the

sympathetic fibers around the carotid plexus, and in the sympathetic fibers of the orbit and the lids.

The following intracranial conditions are to be considered, generalizing, however, for several good reasons: the pathology of intracranial vascular disturbances; the pathology of intracranial space-taking disturbances; and last, the intracranial infections.

Non-traumatic aneurysms are the first to be considered of the vascular lesions. These usually are saccular aneurysms on one of the vessels of the Circle of Willis, as the termination of the internal carotid artery, and too frequently are diagnosed at autopsy. The symptomatology of a ruptured aneurysm is: sudden headache to a most severe degree, oculomotor disturbances, field defects, and marked homolateral disturbances in vision even to blindness. These are the signs of such a condition. Aneurysms may be suspected especially in the presence of symptoms considered frequently as the unilateral ocular signs of multiple sclerosis.

From an ocular standpoint, another subdivision for these aneurysms is a group which accounts for bilateral visual field defects, bilateral total blindness, or bilateral nasal or temporal hemianopia. Frequently, these show a hemorrhagic infiltration of the optic nerves into the retinae, and should be diagnosed prior to their rupture.

Another group of symptoms of localizing value are from a group of aneurysms which give signs of involvement of the contiguous cavernous sinus. They have field defects showing involvement of an optic tract resulting in incongruous visual field defects. Late in these cases, still prior to rupture, however, they will show partial internal and external ophthalmoplegia with exophthalmos on the same side of the head as is the aneurysm. A subdivision of this group is a type of aneurysm with pulsation of the globe, and with various types of bruit. These aneurysms are usually an involvement of the internal carotid with the cavernous sinus together. They may extend anteriorly or posteriorly to the chiasm.

The last subdivision are aneurysms situated posteriorly which give signs suggesting cerebellar neoplasms. The tragedy of most of these is that they cannot be diagnosed too certainly as aneurysms. If one should suspect an aneurysm rather than a neoplasm, it is impossible to state with any degree of certainty that it is arteriosclerotic, syphilitic, congenital, or traumatic. Arteriograms can be, at times, of some assistance in this type of case.

In general the aneurysms of the Circle of Willis are difficult of diagnosis prior to their rupture. The diagnosis must be made by elimination rather than by affirmation, in the largest percentage of instances. The sudden abrupt onset of a subarachnoid hemor-

rhage has classical signs and symptoms, and if this does not carry off the patient abruptly, he has a fair chance of recovery following neurosurgical treatment. These have a great importance in diagnosis by arteriograms.

Next in the consideration of vascular situations is the differential diagnosis of cerebral vascular encephalopathy from space-taking lesions. A differential diagnosis at times is almost impossible to make. If one has the courage of his convictions, time may prove the correctness or the error of a diagnosis. General symptomatology will help to a great extent as will the study of systolic and diastolic blood pressures under varying conditions, the study of capillary fragility, the electrocardiograph, and a study of the kidney function.

The appearance of the fundi are outstanding in importance in solving this question. Incidentally, the vascular pathology of meningo-vascular lues, while it is from an infectious form of encephalopathy, falls into this category. Meningo-vascular lues does not have as a too common accompaniment the Argyll-Robertson pupil. Cerebrospinal lues of the paretic and the tabetic types show the pupillary changes of lues much more frequently. Vascular changes of the peripheral type can be so marked that the papillitis and the peripapillary edema of this grade of retinopathy approaches in appearance a choked disc from intracranial pathology. There are enough differences that reasonable doubt, as to the etiology, will compel further detailed studies to uncover the true etiology.

Papilledema in its early onset is a mechanical situation. The changes which it causes, and which one sees in the fundi are venous engorgement, edema, and retinal hemorrhages of venous extravasation. A marked amount of papilledema can be present, and if the visual pathways as such are not involved and there is no peripheral retinal damage to central vision, the patient may be unaware of any impairment of vision. He seeks relief because of dizziness and vertigo, nausea and vomiting, and headaches, and not because of visual distress.

A much more marked impairment of vision, therefore, is to be expected in peripheral vascular retinopathy. Cerebrovascular disease, of arteriosclerosis and from syphilis should have retinal vascular changes of the same type and degree as the changes present in the vessels of the brain. Changes in the caliber of the retinal arterioles from arteriosclerosis, thickening of the vessel walls, perivasculitis, exudates into the retina, and capillary hemorrhages when seen in the retina are also certainly present in the brain substance.

Vascular disease of the posterior fossa is manifested by the field changes of occipital lobe pathology, and through the oculomotor disturbances which de-

velop. Arteriosclerosis of the unpaired basilar artery (after the two vertebral arteries have fused to form the basilar) results in bilateral nuclear disturbances of the oculomotor nuclei, especially of the sixth. A sudden abrupt bilateral sixth nerve palsy in a person past middle age with coma following a mild traumatism to the back of the head will almost certainly prove to be a vascular accident of the basilar artery. The finding of blood in the cerebrospinal fluid is a comitant sign. If the condition is unilateral under similar circumstances, the third nerve now involved, one needs to think of a similar rupture of the posterior cerebral artery. Extracortical hemorrhages have, very frequently, not only oculomotor disturbances, as well as papilledema, but also the abrupt appearance of a comitant dissimilarity in the size of the pupils.

The neurological syndrome of frontal lobe pathology, known to all neurologists and neurosurgeons as the Foster-Kennedy syndrome has been seen not uncommonly as a result of vascular pathology in the region of the frontal fossa. This syndrome presupposes the presence of pressure upon the prechiasmal portion of the optic nerve on that side regardless of whether this pressure arises from aneurysm, hemorrhage (from its rupture) or from neoplasm.

The ocular signs of a cerebrovascular accident at the internal capsule are rather classical. These symptoms and the sequence of events which occur in such a situation would be as follows:—A patient is first seen in a coma or a semicoma with a deviation of the head and eyes to one side at that time. This deviation lasts only a short time, however, because it is the irritative phase of conjugate deviation due to temporary irritation of the fibers for right or left gaze as they pass through the internal capsule. As the coma recedes, a hemiplegia appears on the side of the body to which the head and eyes were originally directed. This early conjugate deviation now changes to the opposite side, because those same fibers which directed the head and eyes toward the paralyzed side have been destroyed in the internal capsule and the centers for lateral gaze from the opposite normal side are now working unopposed, and hence in excess. The fields of vision when taken later will show a complete homonymous hemianopia on the same side as the hemiplegia, for the visual fibers have been permanently destroyed by the internal capsule hemorrhage.

The ocular manifestations of thrombosis of the cerebral arteries other than those of the internal capsule have a characteristic syndrome also. The eye signs and symptoms are less distinctive and are almost wholly those which result from interference in the capsule lobe radiation of the visual fibers. Mention must also be made here of those eye signs which one sees in the interpeduncular hemorrhagic lesions,

traumatic or spontaneous, from other types of pathology. These same signs, about to be mentioned, will develop from other than vascular lesions in these same anatomic areas. The exact etiology will depend upon the history of the case and the other neurologic and medical signs and symptoms. Superior alternating hemiplegia and inferior alternating hemiplegia, and the late signs in the oculomotor nerve of the misdirection of regenerating third nerve fibers are to be included.

Conjugate deviations arising from supratentorial conditions differ from those which arise from infratentorial conditions. Here there is never an irritation phase for such pathology at that point in the brain stem would kill the patient. It is, however, seen not uncommonly as the result of destructive pathology there; the head and eyes are naturally directed to the side opposite from the lesion; it is of much smaller amplitude in degree on conjugate deviation; and when this appears, it remains as a permanent situation.

A cavernous sinus syndrome may appear either from pituitary pathology, which has risen out of the sella, and is pressing upon the cavernous sinus of one side, or as the result of a clot in the sinus. That syndrome was seen more commonly before these days of antibiotics and of sulfa chemotherapy. The picture is tragic. The third, fourth, and sixth cranial nerves lie in the cavernous sinus in septa passing through the sinus. The veins from the lids, the orbit, and from the globe drain either directly or indirectly into the cavernous sinus. If the sinus should become closed by pressure from without the sinus, or because of a clot (traumatic or infectious in nature), the syndrome appears. It is one of oculomotor paralyses of the sixth, and then the third and the fourth cranial nerves. Edema of the conjunctiva appears, edema of the orbital contents with exophthalmos develops, and thereafter appear venous engorgement of retinal veins with retinal hemorrhages, and the early involvement (in this same sequence) of the eyeball on the other side.

The next subdivision is relative to the ocular manifestations in intracranial neoplasms. Papilledema must be first discussed. Intracranial pressure arises whenever there is a disturbance in the normal flow of cerebrospinal fluid as it passes from the lateral ventricles through the third ventricle, and into the fourth ventricle through the foramen of Monro, and into the spinal canal. There is no wonder, considering that 85% of cases of infratentorial space-taking pathology have as an accompaniment a choked disc. The foramen of Monro as it opens into the fourth ventricle is most vulnerable to interference in the circulation of cerebrospinal fluid at this point.

Neoplasms which appear above the tentorium have

a lower incidence of papilledema. They have, however, an otherwise equally rich ocular symptomatology in the fields of vision, a situation not present (as said before) with infratentorial pathological changes.

Pathology about the chiasm is a bit individualistic. Many textbooks of ophthalmology and neurology speak of bitemporal hemianopia as the classical sign of chiasmal space-taking pathology. This is best seen in papilledema with the chiasmal fields of an expanding cyst of Rathke's pouch, the so-called craniopharyngeoma. The lesion has a rather characteristic roentgenray picture which should confirm a suspected diagnosis of that condition. Arachnoiditis at the chiasm is, from an ocular standpoint, not essentially dissimilar in symptomatology. The general signs and symptoms present tend to confirm or deny other pathological possibilities. A gumma in this region must not be overlooked.

Pathology of the temporal lobe, and lateral to the geniculate body shows the classical homonymous field defects of the optic pathways from there back through the geniculocalcarine pathways into the optic radiation and into the occipital lobe. One finds the field defects to be characteristic of such pathological conditions.

Even more important, however, is the study of the pupillary fibers and their response to direct light stimulation. The iris reflex fibers leave the retina in common with the visual fibers. In the geniculate body, which is overlaid by the temporal lobe, these iris reflex fibers split off from the visual pathways and pass to the superior colliculus where they form their first synapse. If reaction to direct light stimulation is lost when that part of the retina in hemianopia is also stimulated, then the pathology is certainly inclusive of damage to the geniculate body. If the pupillary reflex fibers are intact and respond to direct stimulation then the pathology must lie behind the geniculate body and before the geniculocalcarine pathway is changed into the optic radiation. The characteristic field defect of temporal lobe pathology is the loss of homonymous quadrants in the fields of vision.

Posterior pathological changes of calcarine artery disturbances are a bit characteristic, because the visual cortex is laid down in a rigidly systematic manner, the cortical centers for central vision being most posterior. Many interesting cases have been seen and have appeared in the literature showing beautifully the ability to diagnose lesions in the occipital cortex from the central and peripheral field changes which have appeared in the fields of vision.

Infratentorial pathology has, as was said, its greatest ocular symptomatology in the iris reflex pathways and in their disturbances, and in the oculomotor

realm. Bilateral sixth nerve palsy was already mentioned. Vertical nystagmus, when it appears, is almost certainly the result of posterior fossa pathology. This type of nystagmus is never peripheral, labyrinthine, nor ocular. Horizontal nystagmus is, in its slow phase, similar in all significance to a conjugate deviation of the head and/or eyes.

The alternating forms of hemiplegia of the face and eyes on one side of the body, and of arms and legs on the other side are diagnostic of interpeduncular lesions, neoplastic and vascular, in the neighborhood of the pons. The isolated sixth nerve palsy from slowly developing intracranial pressure is always characteristic.

As to the infections: encephalitis, multiple sclerosis, neuromyelitis optica, Schilder's disease, cerebellar degeneration, congenital and familial forms of the ataxias, meningitis, tuberculosis, and the brain abscesses, intradural and extradural, all have classical ocular manifestations of importance. The question of retrobulbar neuritis alone is of great significance. For years a controversy has simmered at times and raged at other times as to the etiology of retrobulbar neuritis. The nasal accessory sinuses have been blamed frequently for this condition. It is doubtful whether the nasal accessory sinuses have ever caused a retrobulbar neuritis, but it is freely granted that they do occasionally cause a true neuritis. With the exception of specific toxins, and the drug poisons, and a very rare instance of allergic optic nerve neuritis, retrobulbar neuritis means multiple sclerosis. Multiple sclerosis itself can cause a true papillitis even hemorrhagic at times. Nystagmus and atrophy of the papillomacular portion of the optic nerves are the classical changes seen.

Chiasmal arachnoiditis will at times give a chiasmal syndrome even to X-ray visualized deformities appearing in the bony conformation of the clinoids. The oculogyric crisis of chronic encephalitis is a classical oculomotor syndrome of a chronic infection. It is an exact opposite to Parinaud's syndrome of paralysis of upward gaze which one sees in quadrigeminate plate pathology. One is the result of destruction through a neoplasm in that region; i.e., the quadrigeminate plate; the other (the oculogyric crisis) is the result of an irritation in that region, as one finds in chronic encephalitis.

The syndrome of sixth nerve palsy with a fifth nerve neuralgia from petrous pyramid pathology has a peculiar interpretation. The appearance of this in the presence of a suppurating otitis media makes surgery to the mastoid imperative. The appearance of this syndrome, however, following surgery, does not have the same significance. Now, however, a petrous pyramid osteitis is established, and the danger of the extradural abscess is imminent. The pres-

ence of a choked disc with horizontal nystagmus proves the presence of that abscess, and posterior fossa craniotomy for drainage must be done, because of a cerebellar or tentorial lobe abscess from the osteitis.

The papillitis and oculomotor disturbances of the various forms of meningitis are not uncommon. Unfortunately, many of these cases do not show these ocular signs until the case is in extremis, as is seen unfortunately with tuberculosis meningitis.

Paralysis of convergence and of divergence, the other third and sixth nerve paralyzes of encephalitis of many types, are an almost certain accompaniment of the encephalitides. These will appear as paralysis of right and left gaze, of upward gaze, and those apparently asymmetric oculomotor paralyzes bilateral, which indicate disturbances in the brain stem, both in the nuclei and in the connecting tracts. There is no doubt that the sixth nerve is subject to a true neuritis. This neuritis is just as primary as that form one sees of the seventh nerve. Exposure while automobile driving in severely inclement weather with the window open on that side has resulted too often in an immediate sixth nerve palsy to doubt this statement.

Diplopia of any type is an important subjective symptom, and must be explained. Nuclear paralysis from infections are seldom total in consequence of the great extent of the oculomotor nuclei as they lie in the brain stem. For instance, a total third nerve paralysis, both internal and external ophthalmoplegia, is certainly infranuclear, and due to trunk pathology. On the other hand, a paralysis of the sphincter pupillae or of convergence, or an isolated ptosis, with perhaps the superior rectus also involved, is quite likely central and nuclear in origin.

A special note about cerebrospinal lues, and the other forms of luetic pathology of the central nervous system is applicable. Cerebrospinal and cerebral syphilis and syphilitic optic nerve atrophy are still with us in distressing amounts, in spite of penicillin therapy. The optic atrophy and the Argyll-Robertson pupils of tabes and of paresis are too well known to need much discussion. The presence of an optic atrophy is, however, a most important point in considering the type of therapy to be used. Meningo-vascular lues has it, characteristically, — vascular retinopathy of long standing arteriosclerosis. Oculomotor paralyzes, especially of the sixth and of the levator are not rare. Gummata of the central nervous system are still seen, though most uncommonly, in some of the larger neurological clinics. Their findings are frequently similar to those from any other type of space lesion, plus, however, the positive serology. Vascular disturbances of the aneurysmal varie-

ties are not uncommonly luetic, though these seem to be rather infrequent, at least in recent years.

The author is closing this discussion with an apology. It is offered not because of the contents of the paper nor of its length. In fact, from all standpoints it has been all too short. The apology is offered because it has been necessary to present the subject in rather patchwork manner. It is difficult to pick out ophthalmological phases of the various intracranial conditions, and present them separately from the peripheral neurological findings, from the otological findings, or from those symptoms which are non-ophthalmological. It is a fact, however, that this portion of the symptoms possible; i.e., the ophthalmological, is the least understood, and hence, the

most neglected by many practitioners of medicine. Even the neurologist is not infrequently remiss, for regardless of what he thinks, ophthalmology is not a branch of neurology. If this criticism is factual, then it behooves all medical men to remember that the fitting of glasses, and operating on cataracts are not the sole functions of an oculist. He has something to give in differential diagnosis if that is asked of him.

This presentation is a further, more extensive discussion of a rather similar subject presented a year ago in this same journal. It might be worth referring to that.

NEPHROSIS IN CHILDREN, A CASE REPORT

JOHN F. ANDREWS, M. D., Boothbay Harbor, Maine*

Definition: A disease of children which is characterized usually by the insidious onset of edema, ascites and pallor with associated proteinuria, hypoproteinemia and hyperlipemia. There is no preceding evidence of acute glomerulonephritis. There may or may not be transient signs of nephritis such as hematuria, cylinduria, hypertension and elevated BUN.¹

The cause of nephrosis is still not known and therefore specific treatment is unavailable. The active disease may last from six weeks to more than five years,¹ but more commonly from one and a half to four years.² About one-half of such cases will recover, but it is still impossible to tell from the early clinical course or laboratory findings which cases will recover and which cases will go on to renal insufficiency and death.¹

CASE REPORT

N. A., a six-year-old white female was admitted to the hospital on August 30, 1954, and discharged September 26, 1954.

Past history: No serious illnesses or previous hospitalizations. It is interesting to note, however, that at the time of the patient's birth the mother showed signs of hyperthyroidism such as exophthalmos, warm moist palms, tremor of the fingers, nervousness, tachycardia, excessive appetite accompanied by weight loss, a palpable thyroid and a BMR of plus 29.

Present history: Several weeks prior to admission the mother noted slight swelling about the child's eyes. The patient had been treated for what was

thought to be conjunctivitis or allergic swelling. Just prior to admission the edema about the eyes became more pronounced and generalized edema plus swelling of the abdomen ensued. The patient appeared pale and her appetite became poor. The urine became dark and scanty. I first saw the patient after she had been hospitalized.

Physical examination: Examination revealed a markedly edematous six-year-old white female who had moderate pallor, but was in no acute distress. The right eye was completely closed because of surrounding edema and the left eye was partially closed for the same reason. Ears, nose and throat revealed no abnormality. There was no adenopathy in any part of the body. The chest was symmetrical. Examination of the heart revealed regular sinus rhythm and heart sounds of good quality. No murmurs were heard. The lungs were clear and resonant throughout. The abdomen was markedly distended and there was a definite fluid wave and shifting dullness. No organs or masses were palpable. There was pitting edema over most of the abdominal wall. Genitalia revealed edematous vulva. There was two to three plus pitting edema of the feet and entire legs.

Laboratory findings: Urine—specific gravity on two occasions was 1.029 and 1.041; albumin four plus; wbc—1 to 3/hpf; rare red blood cells; 0 to 1 finely granular casts and 2 to 3 coarsely granular casts. CBC—Hemoglobin 74%; rbc 3,500,000; wbc 12,800 with a normal differential. A later differential revealed 11% eosinophils and a slight shift to the left. NPN was 43 mg.%. PSP—first hour 98 c.c., 20%; second hour, 220 c.c. 30%. Total protein 3.6 gm.%. Albumin 1.9 gm.%. Globulin 1.7 gm.%. Total cholesterol 806 mg.%. Total cholesterol 806 mg.%. Total cholesterol 806 mg.%.

* Medical Department, St. Andrews Hospital.

Clinical course: The urinary output was scanty and as low as 60 c.c. in 24 hours. The patient was placed on a low salt diet and was given ammonium chloride without effect. A paracentesis was performed on the tenth hospital day, productive of approximately 2,000 c.c. of clear colorless fluid. The paracentesis site continued to drain intermittently for the following three days productive of approximately an additional 1,000 c.c. of fluid. Shortly following the paracentesis the patient had a spontaneous diuresis and the generalized edema began to subside. ACTH and cortisone were considered, but because of the diuresis were not given. The patient was discharged on the twenty-eighth hospital day.

Second hospital admission: Two weeks following discharge she was readmitted (October 9, 1954) because of a recurrence of generalized edema and ascites. A second paracentesis was performed, productive of 1,000 c.c. of clear colorless fluid. Urine output remained scanty and edema appeared to be increasing. ACTH was started on the fourth hospital day and 100 mg. daily was given for a period of ten days.² Potassium chloride, 2 gm. in four divided doses was given during this treatment and subsequent hydrocortisone treatment. No diuresis resulted either during this course of ACTH or following its withdrawal. Hydrocortisone, 100 mg. twice daily, plus Diamox, 125 mg. daily, was started on the eighteenth hospital day and was given for a fifteen day course without any resulting diuresis either during or following these drugs. A rest period of six days followed and the hydrocortisone plus Diamox was again started. Weight at this time was approximately 41 pounds. On the first day of the second course of hydrocortisone treatment, the patient had a diuresis averaging from 1100 to 1200 c.c. of urine daily for the entire eleven day period she was on the drug. Her weight gradually dropped during and after this course of treatment from 51 to 39 pounds.

Laboratory findings on second admission revealed a total cholesterol of 577 mg.%, a hemoglobin of 80% and a urinalysis which differed very little from the previous admission—specific gravity 1.030, four plus albumin on all specimens, occasional white cells and a few red blood cells per high power field. NPN was 49 mg.%. PSP—first hour 40%, second hour 8%. The patient was discharged on December 2, 1954.

During this admission the patient was on terramycin oral suspension, 100 mg. four times daily.

DISCUSSION

This case represents all of the manifestations of

so-called "pure" or "lipoid" nephrosis. The usual age of onset is from one and one-half to four years.² Because this patient's illness began at six years does not rule out the diagnosis of nephrosis although onset at this age is relatively rare. The onset was typically insidious, beginning with edema about the eyes which was mistaken for conjunctivitis or allergic swelling, which is a common error early in this disease.¹ Eventually, as in most cases, the edema became generalized and the abdomen became distended with ascites making the diagnosis more obvious. She showed the triad of proteinuria, hypoproteinemia, and hyperlipemia. She had one spontaneous diuresis during her first hospitalization and a rather sudden exacerbation of edema and ascites two weeks following her discharge from the hospital. During her second hospitalization it was felt that the diuresis and loss of edema were the result of ACTH and hydrocortisone therapy. It is not yet known that these drugs have any effect on the final outcome of the disease although their use has induced diureses in many children with nephrosis. It has also been found that "these hormones have fairly reproducible effects on many of the known physiologic and biochemical characteristics of the disease . . . in the direction of improvement. These effects . . . suggest that the hormones favorably influence basic disease process."¹

Treatment: As stated earlier, there is no specific treatment for nephrosis in children. However, general treatment is of great importance. It is generally agreed that moderate restriction of salt is helpful. A high protein diet is apparently of no value.³ It is felt by some that no restrictions should be placed on the activity of a child with nephrosis. Infusion of human serum albumin and plasma substitutes have induced diureses, but the effect is transient.³ The use of ACTH and cortisone has been discussed. Prevention and treatment of infections by the use of appropriate antibiotics still retains its paramount importance in the treatment of nephrosis in children. This is substantiated by the fact that peritonitis and other infections were the cause of death in approximately 50% of the children with nephrosis prior to the discovery of antibiotics. Hospitalization should probably be reserved for the treatment of infections and for special treatments such as paracenteses and courses of ACTH and cortisone.

REFERENCES

1. Barnett, H. L., and Shibuya, M.: Postgraduate Medicine, 15:362-369, April, 1954.
2. Cooke, R. E.: Conn. Med. J., December, 1953.
3. Merrill, J. P.: Principles of Internal Medicine, Second Edition, 1455-1458, 1954.

VOMITING IN INFANCY

GEORGE E. DASH, M. D., Boothbay Harbor, Maine*

In making a diagnosis in a case in which vomiting in an infant is the outstanding symptom, the questions arising in order of their importance are: (1) has it a true anatomic or pathologic basis? (2) is it a feeding or digestive problem? or (3) is it reflex, with no pathology in the digestive tract, or no error of feeding but due to trouble elsewhere?

A certain amount of vomiting in the newborn is to be expected, especially in the first few hours after birth. The gastric mucosa in the newborn is unusually sensitive to irritants and in the process of delivery some amniotic fluid may be swallowed, resulting in the vomiting of mucous which may be blood-tinged. It would be a persistence of this type of vomiting which would be significant. One must think of vomiting as an early symptom of cerebral hemorrhage (increased intra-cranial pressure), and must also bear in mind the possibility of congenital defects, malformations of the oesophagus or intestines, bands of adhesions and the like. These can produce symptoms of obstruction often simulating pyloric stenosis and, if below the outlet of the common duct, may vomit true bile. Oesophageal obstruction usually shows an immediate vomiting of the food. X-ray and careful examination can usually rule out these congenital anomalies. Gastric ulcer seems a far-fetched impression but it has been found, even perforation with its attendant peritonitis. These cases may vomit blood or it may show up as a melaena. Meconium ileus must also be considered when symptoms of intestinal obstruction occur the first day or two after birth. On account of the danger of perforation in the distended loop of bowel, immediate active treatment is necessary.

PYLORIC STENOSIS

The vomiting of pyloric stenosis is characteristic, there is no condition of unobstructive vomiting just like it. It occurs almost any time in relation to feeding, may be immediately or a short time after feeding; it consists of the entire feeding, often more, material remaining in the stomach from a feeding or two before. It is the characteristic projectile nature of the vomiting that is diagnostic, often shot out three or four feet, even through the nostrils. If one watches the face of these babies, there is seen a peculiar, anxious expression, and a rather characteristic chewing motion of the mouth immediately preceding the expulsion of the food. There is no nausea and the infant is ready and anxious to resume feeding immediately after vomiting. The other cardinal symptoms

simply fit into the picture: the steady and progressive loss of weight, extreme emaciation, obstinate constipation, visible peristalsis, possible finding of the tumor mass and the tendency to alkalosis from the loss of gastric acid all complete the picture. One wonders whether it is necessary to torture these babies with barium in the stomach or barium enema when the clinical picture is so evident. One must also not be misled by the reported infrequency of pyloric stenosis in the female or its almost total absence in the colored race. After a thorough trial of thick feedings and atropine or similar drug to tolerance has failed, the diagnosis is sufficiently established to warrant surgery.

PYLOROSPASM

Pylorospasm is not stressed today as it has been in the past. Still, we feel there are many cases, the question being a differentiation between it and true pyloric stenosis. These babies show the same projectile vomiting only less severe, there is often persistent hiccough, they are usually hyperkinetic and show signs of slow resolution of the thymus. We have usually advised X-ray of the thymus, with two or three treatments if hypertrophy is marked, together with the same classic thick feeding and atropine to tolerance as in true stenosis. Our knowledge of the causes of true pyloric stenosis is still rather vague and one wonders whether they start as a mild pylorospasm which later become the true fibrous growth.

LOWER OBSTRUCTIONS

Obstructions in the duodenum and small intestine such as intussusception produce vomiting usually reflex in the early stages. Later, if the child has not been operated and survives that far, the vomitus may become bile-stained and later the classic fecal type. Usually, however, the characteristic abdominal pain, the bloody stool and finding the tumor mass are more significant in the diagnosis than is the vomiting. The vomiting in this, as in appendicitis, is simply nature's warning that no food is wanted in the intestine.

Hernia in infants does not usually incarcerate or strangulate; the entering ring is usually large enough to prevent such a possibility. However, in inguinal, umbilical or diaphragmatic hernia this is a possibility and vomiting may be an early symptom. We recently saw a strangulated inguinal hernia in a 6-weeks-old child, in whom vomiting was the outstanding symptom.

* Pediatrics Department, St. Andrews Hospital.

DIGESTIVE DISTURBANCES

In the breast-fed baby which, unfortunately, we see too infrequently today, some vomiting may be expected at times. It is the old story of milk from one cow: there are unquestionably some modifications of the milk due to over-work or emotional disturbances in the mother, which may result in mild vomiting; however, if the infant makes the classic gain of 5 to 8 ounces per week, in the absence of other symptoms, occasional vomiting may be disregarded.

Vomiting from digestive disturbances is usually easily recognized and responds readily to treatment. First is the necessity of having the baby belch the air swallowed during nursing. Regardless of the type of nipple used in artificial feeding, or the technique used, there is some air swallowed unavoidably. This expands from the heat of the stomach and unless the baby is placed in an upright position and the air expelled, it will expel some of the stomach contents with it. With the almost universal use of evaporated milk in early infancy, many of our feeding problems have vanished; however, some remain. There is still a tendency to over-feed, a frequent cause of vomiting. When feeding un-evaporated cow's milk, again with the present methods of homogenizing, many of our old problems have been resolved. However, we do see some babies who do not tolerate fat well and these are very frequently vomiters. These are the type which many years ago, Von Pirquet described as "weight disturbance." They present a classic picture; overweight, a tendency to ammoniacal urine with its attendant intertrigo of the diaper region, constipation with the typical dog stools, hard white or gray and alkaline, and a marked tendency to skin rashes such as seborrhoea and eczema. These babies are highly nervous and show increased tendency to rickets. Their vomiting, with the above picture, make them easily recognized. A reduction or temporary elimination of the fat and the use of alkaline carbohydrate such as Dextro-maltose #3 will usually be specific.

Seasonal changes in the local milk supplies may also produce vomiting. The first of these are when the cows are put out to a lush pasture after a winter in the barn; secondly, when the reverse is true — when they are taken off the pasture and barn-fed — and lastly, from frozen milk. While it is only the water content of the milk which freezes, there is a break-up of the emulsion of the fats, which renders it far more difficult to digest, hence the vomiting. There are also rancid stools which smell like stale butter (fatty acids undigested), and intertrigo from these stools. Usually feeding skimmed, boiled milk for a short time is all that is necessary. Older children are not affected by frozen milk as are infants.

MISCELLANEOUS TYPES

Trouble in almost any part of the body may produce vomiting as a reflex condition. For many years the textbooks have listed vomiting as one of the initial symptoms of the contagious diseases. Vomiting may be the early symptom in increased intra-cranial pressure from meningitis, hemorrhage, or brain tumor.

Rumination is a type of vomiting not too often seen. These infants are usually of a highly nervous type, regurgitate the food into the mouth and will go through the same movements of the jaws and mouth as a ruminating animal. They bring up the food a mouthful at a time, chew it and eject it without force. Thick feedings with treatment of the underlying nervous condition usually results in a cure. However, these cases are very stubborn.

Vomiting from toxic causes, for example uremia, also the accidental ingestion of poisons must be borne in mind. Cyclic vomiting is only mentioned in passing as it is essentially a disease of older children, and rarely seen in infancy.

It has not been our purpose to present anything new or of especial interest to the pediatrician. It is just a rough outline of some of the practical phases of these conditions of interest to the general practitioner.

The Month In Washington

Washington, D. C.—With the 84th Congress well into its first session, all indications point to an active year in medical legislation. Many of the bills will founder somewhere along the way, but as of now an imposing number are lined up awaiting consideration in Senate and House.

Confirmation that medical problems rank high in the administration's work schedule for Congress came early in January in President Eisenhower's State of the Union Message. This is the address,

delivered in person before a joint meeting of Senate and House, in which the President annually outlines in general terms the condition of the country and the new legislation he believes should be enacted.

This message highlighted the President's objectives, but did not tell in specific terms how he expected to reach them. The details came later, in five additional messages to Congress, including one on health on January 24. The President wants Congress to take action on the following health and medical items:

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BELL'S PALSY

Report of Three Children Treated with Cortisone

EDWIN T. WYMAN, M. D.*

Disease of the seventh nerve is not infrequent in children from the same causes that result in facial paralysis in the adult. Bell's palsy may occur in children at almost any age. However, it is rare before the age of three and is most frequent between the ages of six and fifteen years. Sudden drafts of cold air are by far the most frequent cause. The side of the face exposed to the draft is generally the one that is paralyzed. In a few instances it is difficult to make out the exact cause, but even under such circumstances refrigeration is very probable.

The distal portion of the facial nerve, the portion outside the skull, is generally affected in these cases. All the branches of the facial nerve are involved, but there is no interference with taste, with hearing, with movement of the palate or with the secretion of saliva.

The paralysis involves the muscles of the eyes, the nose, the cheeks and the lips. On inspection of the child's face, it is easy to make out which side is affected as the eyelids of the diseased side are wide open. If the child is asked to close the eyes, it does so with ease on the sound side, but the diseased side fails to respond. When asked to scowl there is over action of the frontal muscles on the sound side, while the affected side shows either diminished action or total paralysis. The child cannot pull up its nose. In blowing out the cheeks the diseased side is flabbier than the sound side, and if the attempt is made to whistle or pout the lips, as in kissing, the insufficient action of the muscles on the diseased side become very evident. If asked to show the teeth, the muscles of the sound side overact, and the mouth is drawn toward the healthy side.

By this movement the paralysis is often revealed, even if the parts appear perfectly normal while at rest. Sensory disturbances are entirely absent, as the facial nerve is a purely motor nerve, the sensory fibres of the face coming from the fifth nerve.

TREATMENT

The use of Cortisone in the treatment of Bell's palsy in its early stages was initiated by a report on one such patient by Rothendler¹ in 1951. He also published a study of seven other patients who were similarly treated.² One of his patients had shown paralysis for ten days prior to Cortisone administration. During this period faradic tests had shown indi-

cations of nerve atrophy. This patient showed no response to Cortisone. The other six patients with no evidence of nerve atrophy responded promptly to Cortisone therapy. Rothendler states, "The beneficial action of Cortisone can be assumed to be due to a reduction of congestion and related ischemia of the nerve and its sheath in the bony canal."

Robinson and Moss³ have reported the treatment of two patients with Bell's palsy using Cortisone. Prompt recovery followed the oral administration of this hormonal agent. Definite improvement was noted in one patient, a girl, thirteen years old, three days after the institution of Cortisone therapy. Within fourteen days the patient was completely recovered. Their second patient was a five-year-old boy with definite Bell's palsy. By the tenth day of therapy there was virtually no evidence of Bell's palsy, and the general physical condition of this patient was good. These authors continued the Cortisone for a period of seven days following complete recovery which they considered to be on the seventeenth day after the original institution of treatment.

Halpin⁴ has reported a similar instance in one patient. This patient, a twenty-seven-year-old man, had received both penicillin and anti-tetanus serum at the time of a minor injury. Three days after the administration of these preventive medications, suspicious symptoms of minor reactions were noted. These cleared with administration of Cortisone by mouth. However, several days later typical symptoms of Bell's palsy were noted. The administration of Cortisone in a dosage of 200 milligrams daily brought about complete recovery in seven to ten days. Halpin⁵ states, "The rapid recovery in comparison with previous reports of treatment of this condition would lead one to believe that the Cortisone had a beneficial effect upon the edema of the nerve or the sheath causing the seventh nerve paralysis."

REPORT ON THREE PATIENTS

Patient 1. M. F., a seven-year-old girl was seen on October 15, 1953. The mother noticed three days before that her mouth pulled to the right when she laughed and she was unable to close her left eye. Her mother could remember no change in her daily routine before the onset of the paralysis. She had had no pain at any time. Her physical examination was negative except for complete paralysis of the left side of the face, she could not close her left eye or wrinkle her forehead on the left side. There was no

* Physician Emeritus, Children's Hospital, Boston, Massachusetts.

sensory loss of the effected side. A diagnosis of Bell's palsy was made, cause unknown. Cortisone treatment was started at once; one 25 milligram tablet three times a day. This was continued for one week and at that time there was slight improvement in the strength of the face muscles and she was able to partially close the left eye. The Cortisone was reduced to one 25 milligram tablet twice a day. This therapy was continued for two weeks at that time the recovery was complete and the drug was discontinued.

Patient 2. V. S., a six-year, four-months old girl was seen June 29, 1954. Two days before she was seen her mother noticed her mouth pulled to the left when she smiled. The day before the paralysis was noticed she went swimming, riding to and from the beach in an automobile with the windows down. Her physical examination was negative except for complete paralysis of the right side of the face. There was no sensory loss present. A diagnosis of Bell's palsy was made due possibly to chilling and exposure. She was given Hydrocortone 20 milligrams every four hours four times a day for two days, then three times a day for one day, then one, twice a day. At the end of one week there was marked improvement in the affected muscles and she could close her eye. At that time the medication was changed to Cortisone 25 milligrams twice a day for one week. At the end of two weeks she had completely recovered. The Cortisone was diminished to 25 milligrams once a day for one week and then discontinued.

Patient 3. C. N., a ten-year, two-months old girl was seen on July 7, 1954, four days after the paralysis was noticed. The girl had been playing with other children in the yard, spraying each other with cold water from a garden hose, the day before paralysis occurred. Her physical examination was negative except for complete paralysis of the left side of the

face. There was no sensory loss of the affected side. A diagnosis of Bell's palsy was made, probably due to chilling with cold water. Cortisone therapy was started at once; two 25 milligram tablets three times a day. Four tablets were given the first day and the mother noticed definite improvement the next morning. This treatment was continued for two days, then one 25 milligram tablet three times a day for one week, then one tablet twice a day for another week. After one week of treatment she could close her left eye and all the formerly paralyzed muscles of the face were nearly normal. At the end of the second week of treatment, she was seen again and recovery was complete.

CONCLUSIONS

Three children treated with Cortisone in the early stages of Bell's palsy made a complete recovery in two to three weeks after the Cortisone was started.

While in the past many patients of Bell's palsy recovered within a few weeks or months, occasionally the paralysis was permanent. No patients in my experience have recovered as rapidly as these patients treated with Cortisone.

The therapy should be started as soon as possible after the onset of the paralysis before atrophy of the nerve takes place.

REFERENCES

1. Rothendler, H. H.: Bell's Palsy treated with Cortisone, *J. Nerv. and Ment. Dis.*, 114:346-347 (Oct.), 1951.
2. Rothendler, H. H.: Bell's Palsy treated with Cortisone, *Am. J. M. Sc.*, 225:358-361 (April), 1953.
3. Robinson, W. P., and Moss, B. F.: Treatment of Bell's Palsy with Cortisone, *J. A. M. A.*, 154:142 (Jan.), 1954.
4. Halpin, L. J.: Bell's Palsy, Serum or Penicillin Sensitivity. A Case Report, *Ann. Allergy*, 12:196 (Mar.-Apr.), 1954.
5. Halpin, L. J.: Miscellaneous Review of Allergy, *Ann. Allergy*, 12:306 (May-June), 1954.

The Month in Washington—Continued from page 9

1. A federal health reinsurance service. This idea was rejected by the House last year, but neither Mrs. Hobby nor Mr. Eisenhower has given up hope for it.
2. A plan to insure better and more uniform medical care for public assistance recipients through larger U. S. appropriations and more administrative controls.
3. Federal assistance in construction of health facilities and in providing more trained health personnel (other than physicians).
4. A new federal program to combat mental illness and return more mental patients to useful lives outside institutions.
5. An improved federal program for aiding crippled children and for maternal and child health.
6. Strengthening of the pure food and drug laws to give greater consumer protection.
7. More attention to "the increasingly serious pollution of our rivers and streams and the growing problem of air pollution."
8. An expanded program for the medical care of military dependents.
9. A voluntary health insurance program for federal civilian employees with U. S. contributions and payroll deductions authorized for the employees.

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CONGENITAL DACRYOSTENOSIS

ALLAN C. HURD, M. D., Gardiner General Hospital, Gardiner, Maine

Congenital dacryostenosis, as seen in a fairly large number of infants, is that type of obstruction of the lacrimal passage wherein an incomplete canalization of the nasal end of the duct has left a membranous barrier between an otherwise patent lumen and the inferior meatus of the nose. To understand this more fully it is helpful to delve briefly into the development of the lacrimal passage. A short summary of a recent article by Cassady will best serve this purpose.

The nasolacrimal passageway takes its origin in the 7 mm. embryo from a thickening of the ectoderm in the naso-optic fissure which becomes buried in the mesenchyme between the lateral nasal process and the maxillary process. It detaches itself from the surface and extends both upward and downward to reach the ocular and nasal extremities. This epithelial cord canalizes, becoming patent first at the ocular end and finally at the nasal end. The latter is not completed at birth in many instances. The last part of the passageway to be canalized is the coalescence of the lining membrane of the nasal end of the duct and the nasal mucosa of the inferior meatus. When this canalization fails, an imperforate membrane blocks the passage. According to Cassady, this happens in 73% of the newborn, either unilaterally or bilaterally. Schwartz puts this figure at 35% in a somewhat earlier report.

Usually these passages which are not patent at birth become so before the beginning of tear formation which is thought to occur at around $3\frac{1}{2}$ weeks on the average. However, in a certain number, estimated by Schwartz at from 1.75% to 5%, this belated completion of canalization does not take place and the blocking persists with resulting epiphora and mucopurulent exudate from the stagnation of tears in the sac. Some of these failures do become patent later, after varying intervals, without treatment. The correct percentage of these spontaneous recoveries is probably not known.

While it cannot be said that the symptoms from congenital atresia of the duct are particularly alarming, the constant tearing and mucopurulent discharge are most disturbing to the parents. In addition, as Cassady points out, possible permanent distention and loss of elasticity of the passageway, as well as danger to the eye itself from exposure to infected tears, are reasons for remedying the situation. Granstrom reports loss of an eye in infants from this deflection on more than one occasion. To be tolerant of such an infected pocket hardly seems sound if its elimination can be accomplished without complications by a relatively simple measure.

DIAGNOSIS

The diagnosis of tear duct obstruction in infants can usually be made without undue trouble from the history of tearing and sticky discharge in the eye since birth. Pressure over the sac will expel its contents of mucopurulent material into the eye through the canaliculi. Confirmation can be made by irrigating the sac, the solution failing to go into the nose and returning through the other canaliculus into the eye. The technique for this procedure will be described later. If it is necessary to use this method for diagnosis, it is best done at the time of probing just preceding the latter.

TREATMENT

In the consideration of treatment of congenital dacryostenosis, I am well aware of the divergence of opinion which exists particularly as to the advisability of early probing of the passage. Some ophthalmologists probe as soon as the deflection is recognized, some probe after an unsuccessful period of conservative treatment, the duration of this period varying greatly, still others are opposed to probing at any time. The literature is replete with articles supporting these differing views. There are, no doubt, many who will take issue with me on the line of action to be described here, nevertheless it has worked well in my small series of 26 cases. It should be understood that there is no intention of claiming anything original for the procedures to be reported, the main substance of these can be found in numerous texts and in the literature.

When an infant with impatency of the nasolacrimal duct is first seen, its age determines, to some extent, the first step to be taken in the institution of treatment. If under 6 months of age I allow a trial period of so-called conservative measures. The mother is instructed in the method of applying pressure over the lacrimal sac to force its contents downward toward the membranous barrier at the nasal end of the duct. This is an attempt to exert sufficient hydrostatic pressure against the obstructing membrane to bring about its rupture. If this happens, and it occasionally does, then a cure is achieved without further ado. When such a program is not effective in 3 or 4 weeks of application, probing is resorted to. On the other hand, if the infant has reached the age of 6 months, I have little confidence in this conservative trial period and make plans to probe directly.

In infants up to $2\frac{1}{2}$ to 3 months of age an attempt is made to carry out the probing without general

anesthesia. The patient must be thoroughly mummified and the head held securely by an assistant. An especially strong child, or an older one, can be handled more favorably under a light ether anesthesia, in my opinion. The procedure is of short duration and requires only enough anesthetic to keep the child quiet to permit dilation of the punctum and introduction of the probe, to me the only real manipulative difficulties in the procedure. I am not inclined to think that the use of a topical anesthetic in these small infants is of much help.

I try to use the upper punctum, everting the lid and gently dilating the orifice with a punctum dilator. Sometimes it is difficult to enter the upper punctum, if so I shift to the lower. Kendig and Guerry, as well as others, feel that there is less chance of creating a false passage if the upper punctum and canaliculus are selected. Then the tip of a #1 or #2 Bowman probe is introduced into the punctum and carried medialward through the canaliculus to the nasal wall of the sac. Contact of the tip of the probe with the nasal wall of the sac is carefully maintained during the next step and this is extremely important. With this precaution respected, the handle of the probe is rotated upward to a vertical position. Continuing contact with the nasal wall of the sac, the tip of the probe is advanced downward and slightly backward (about 20 degrees) through the duct which lies in the bony canal and then on into the inferior meatus of the nose. If this is gently performed (and after a little experience), the presence of the probe within the bony canal can be recognized and, a bit farther down, the tip can be felt to go through the membranous barrier gaining the final objective.

To confirm the presence of the tip of the probe in the inferior meatus, the instrument is left in place and a second probe is passed into the nose lateral to the inferior turbinate and contact attempted with the first probe. This maneuver is not always as easy as it sounds and I rarely make use of it. Irrigation through the passage is probably a better way of proving or disproving success. A lacrimal cannula is fitted to a 2 c.c. syringe filled with sterile saline or water. The tip of the cannula is slipped into the punctum and canaliculus (after withdrawing the probe) and the fluid is flushed through the passage if it has been made patent and into the nose. In case of failure it will of course not go through and return to the eye by way of the other canaliculus. It is advisable, when irrigating, to turn the infant's face obliquely downward so that the irrigating fluid will drip out of the nose. This will permit observation and prevent aspiration. I am of the opinion that there is a possibility of the latter happening with the patient anesthetized and, since the fluid is infected, this precaution should be honored. I do not always irrigate following probing. Perhaps I am fooling

myself but I think that it is possible, after some experience, to tell by the "feel" if the probe has negotiated the final passage through the membrane into the nose. If I am in doubt I irrigate.

It might be well, at this point, to tell briefly of the method used by Cassady, in which a lacrimal cannula fitted to a 2 c.c. syringe, as previously described, is employed for the actual probing in place of the conventional Bowman probe. He is then able to irrigate and test his result without further instrumentation. He reports no untoward results in his series of 100 cases using this method in all.

There is one condition in which it is prudent to irrigate and that is when bleeding occurs. Irrigation should then be continued until the bleeding ceases and the return is clear. If left in the passage the blood coagulates and may itself form an obstruction. There are many ophthalmologists who strongly advocate irrigation in all cases following probing whether or not there is bleeding.

Force must not be employed at any stage of the probing. When bleeding takes place before the membrane at the end of the duct is punctured, it generally signifies that a false passage has been made. I committed this error in two of my cases but fortunately nothing came of it and both cleared up without trouble. Still I am not inclined to treat this accident lightly. In each instance in which this happened I think it was due to my failure to keep the tip of the probe against the nasal wall of the sac as I changed the direction of the probing, a fault previously warned about.

POSTOPERATIVE CARE

As to postoperative treatment, the mother is told to make pressure periodically over the sac, as in the pre-probing trial, and to return for a checkup in 2 or 3 weeks. Drops or ointment containing one of the antibiotics or sodium sulfacetamide may be prescribed but I am somewhat dubious of their value in this situation. The establishment of normal drainage of the tears, if it has been attained, renders other measures superfluous. In a certain number of cases, more especially the older ones, re-probing is necessary and at times more than once. In my cases this had to be done in 6, and repeated in one. It is best to allow an interval of 4 weeks between probings.

PHLEGMONOUS TYPE

I have included in my series two cases of phlegmonous dacryocystitis. In each one of these there was redness and induration over the sac and some fever. Penicillin was administered for several days without any marked effect. Probing was then performed after which resolution was dramatic in both. There may be many opinions at variance with this treatment in acute cases but the institution of normal drainage

seems logical and the immediate improvement in these two infants is worth noting.

REVIEW

In this series there were 24 cases of congenital dacryostenosis and, as mentioned above, two cases of acute phlegmonous infection of the sac. In the latter two the mother of each infant stated that there had been tearing in the affected eye since birth, so it is probable that these were originally the same as the others and, for that reason, are included in this group. Of the total of 26, 5 cleared up with massage of the sac, two were lost track of, 19 were subjected to probing (including the two acute cases) and all of these responded without complications. The youngest infant was 3 weeks old and this was one of the acute infections, the oldest was 22 months, the average age was 5½ months. The 5 cases which resolved on conservative treatment were all under 5

months of age. In comparison with the cases of this type reported by others in the literature, mine were older on the average when first seen. Earlier probing, if it had been possible, would have been preferable for the reasons cited previously.

To summarize, there is an imperforate membrane blocking the normal flow of tears into the nose, located between the lower end of the nasolacrimal duct and the inferior meatus, persisting in 1.75% to 5% of infants. This is an undesirable condition which can be resolved by early probing of the passage, a relatively simple procedure unattended by complications when carefully performed. There were 19 cases in this series in which complete clearing occurred with probing.

The limited number of cases in this series would hardly justify any conclusions. However, it is hoped that some points of interest may be found in this report.

RUPTURE OF THE SPLEEN

FRANK B. BULL, M. D., Gardiner, Maine

Rupture of the spleen is usually closely associated with some form of severe abdominal trauma. Unless at the same time the patient sustains other injuries which mask the signs or symptoms, history and physical will usually bring one close to the correct diagnosis. Rupture may, however, be delayed, or it may even occur in cases without either a history or any physical evidence of injury. So this condition may be classified as immediate, delayed or spontaneous rupture. Spontaneous rupture is more likely to occur in pathological conditions such as leukemia, congenital hemolytic icterus, or with malarial splenomegaly. Nicoll,¹ however, reports a case of spontaneous rupture of the normal spleen and states that there have been 40 cases reported in 20 years. Knopp² has reviewed 28 cases of traumatic rupture, and found 26 to be immediate and only two delayed. Olander and Reiman³ report rupture as late as two years after injury, and Kirk⁴ had three cases of delayed rupture which varied from 6 to 31 days.

Experience with four cases of rupture of the spleen seen at the Gardiner General Hospital during the past 20 years, demonstrates that there may be difficulty deciding whether or not trauma played a part, and if so when. Review of these cases will illustrate this.

CASE REPORTS

CASE 1—A 37-year-old white male was admitted at 11.30 P. M., June 26, 1935. A neighbor heard him groaning in his barn. History was of little value, because of mental confusion due to alcohol and possibly also to shock. His only complaint was abdominal

pain, but it was thought that he had gone to the barn for some wood and might have fallen over a chunk of it.

Positive physical findings were marked shock and restlessness. He was very resistant to any examination. The abdomen was very rigid and tender. Temperature 99.6, Pulse 150, B. P. 45/0.

A diagnosis of internal hemorrhage of unknown origin was made and laparotomy was done through a left rectus incision. The abdomen contained a large quantity of free blood. Internal organs were negative except for a contused appearance of the first portion of the duodenum and a ruptured spleen. This was readily brought up on a pedicle and removed.

One might repeat at this time that this was 1935, and before the days of blood banks. The dangers of operating on patients in shock had not been emphasized as they are today. Difficulty was experienced in obtaining blood donors, and no transfusion was given. In spite of the low blood pressure and obviously critical condition, the patient withstood surgery and postoperatively his circulation rapidly improved. His hemoglobin the following morning was 50% and in 48 hours had dropped to 35%. The red count was 2,160,000 each time. He made an uncomplicated recovery, left the hospital on the 15th day and was back at work in a paper mill in six weeks. He was in good health three years later, but has not been traced since.

The pathological report was of interest, in that in addition to multiple lines of rupture in the gross specimen, miliary tubercles were found microscopi-

cally. These were not thought to contribute in any way to the rupture. Lung X-rays taken during convalescence showed threading and beading in each hilus region, interpreted as probable tuberculosis.

CASE 2—May 21, 1953—This patient was a 36-year-old divorced woman who was seen in her own home about ten P. M. She complained of pain in the abdomen and left shoulder. The abdominal pain began as a sense of fullness and gradually became more severe. She said that she had had several loose movements, had forced herself to vomit, hoping that this would give her relief, and had had some weak or dizzy spells. Her face was pale, and blood pressure was 110/50. The abdomen was tender and rigid, both findings being more marked above the pubis. No bruising could be found and patient at first denied any injury. Later she told a hesitant story about tickling her teen-age boy from behind and of having been struck in the abdomen by his elbow when he reflexly jerked his arm. This had been about three hours before the symptoms began. (Several months later, one of her friends stated that a male companion had punched her in the abdomen during a drinking argument the previous night.) Although seen by two doctors, the patient refused to be hospitalized. However, she arrived at the hospital by car the next morning and walked in. There was no essential change in her condition. Pelvic examination was done and marked tenderness found. She was very evasive about her menses. The predominance of lower abdominal symptoms and signs, plus an attentive and anxious male, tipped the scales in favor of a diagnosis of ruptured ectopic.

Laparotomy was done through a mid line suprapubic incision. A large amount of free blood was found but the pelvic organs were normal. On passing a hand to the upper abdomen, some large clots were found in the splenic area, and a rent was palpable in the surface of that organ. The incision was extended to the left of the umbilicus to the upper abdomen, and the spleen was brought up on a pedicle and removed. At the end of the operation the patient's B.P. was down to 85/55, but it was quickly restored to normal levels with citrated blood. Pathological examination of this spleen showed normal tissue except for the ruptures.

Her post-operative course was marked by an ileus which persisted for eight days. Suction drainage, electrolytes and two transfusions carried her through this period, after which she made a rapid recovery. She remained well until January 31, 1954, when she was re-admitted for intestinal obstruction. This was found to be due to multiple adhesions of ileum and jejunum in the upper abdomen. One coil of bowel was adherent to the upper portion of the laparotomy incision. There were numerous small elevated nodules of tissue attached to bowel and mesentery.

After lysis of adhesions the abdomen was closed. The patient had ileus for four days but made a good recovery and has been well since.

CASE 3—This was a 50-year-old male admitted to hospital May 31, 1953. He complained of severe abdominal pain of sudden onset and of weakness and faint spells of six hours duration. He had taken some whiskey hoping that it would make him feel better. He could produce no history of any injury. The abdomen was very rigid and tender. He did not seem to be in shock. B.P. was 146/50 and pulse 88. W.B.C. 15,150 and 85% polymorphs. In spite of a negative history of ulcer symptoms, the extreme rigidity and sudden onset without any trauma led to a diagnosis of perforated peptic ulcer.

Laparotomy was performed through a right rectus incision. A large amount of liquid and clotted blood was found. The stomach and duodenum were normal, but there were palpable tears on the under surface of the spleen. The incision was extended horizontally from its upper end across the recti muscles to near the left costal margin, and splenectomy was done. The spleen was of average size and the pathological report was negative except for rupture and hemorrhage. The patient received one unit of blood post-operatively. He had a smooth convalescence, was ambulant on the fourth day, and discharged on the ninth and has remained well to date.

CASE 4—This is a man 55 years of age, admitted September 7, 1954 after a 25-foot fall from a staging. He struck on his left hip and side with the metal case of a carpenter's measuring tape in a pocket under him. He complained of pain in the left hip, abdomen and left lower chest. Shock was marked. Previous medical history was of interest because of asthma of six years duration which began at a time of severe worry over the fatal illness of a daughter. Allergy tests had been done on three occasions, by different men and with different findings. He had accumulated some sad dietary restrictions, which he was attempting to follow although they had not seemed to help. Also he was taking ACTH 20 units per day on the advice of a non-medical practitioner.

On admission this patient was in marked shock with a B.P. of 60/30 and pulse 105. His skin was pale, moist and clammy. There was marked tenderness over the left lower chest and left hip. The abdomen was soft and non-rigid. X-rays demonstrated fractures of the left ileum and ischium, but failed to show any rib fractures in spite of the left lower thoracic pain and tenderness.

Shock treatment was begun. An intravenous of 5% dextrose with levophed was started and blood pressure controlled while compatible blood was obtained. It was possible to keep his blood pressure around 90/60 and it was learned that normal for this



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patient was 100 to 110 systolic. Blood pressure began to drop if levophed was stopped but one unit of blood seemed to stabilize him. Because he had been taking ACTH (repository) 20 units daily for four months it was feared that adrenal failure might occur so the dose was doubled. The patient's condition improved day by day for one week, when after a good noon day meal he complained of sudden severe low abdominal pain which quickly became generalized. He showed marked shock and B.P. reached an inconstant level between 60/40 and 85/50 and the abdomen quickly became tender and rigid. An I.V. with Levophed produced temporary improvement, but symptoms persisted and blood was started. Two hours later pain was noted in the left shoulder. Paracentesis of the left addomen was done with a blunt needle and blood obtained. A diagnosis of ruptured spleen seemed warranted.

Laparotomy was done through a left upper rectus incision, three hours after the onset of symptoms. The abdomen contained a large amount of liquid and clotted blood. The spleen had been separated from its bed by blood clots so that it was readily brought up for splenectomy. It was of average size and showed several lines of rupture. The pathologists report showed normal tissue on sections.

The patient required three units of blood before, during and after operation plus some electrolytes. His B.P. soon stabilized. There was some pulmonary oedema for a few hours after which improvement was steady. There was some difficulty with mild asthmatic breathing. ACTH 50 units per day did not seem to help this so it was gradually cut down and stopped. Because of the pelvic fracture he remained in bed six weeks, during the latter part of which there was some difficulty from a phlebitis in superficial veins of the left thigh and calf. Now two months after injury he is at home—walks without difficulty, but is rather slow in regaining his strength.

COMMENTS

Complete history and physical examination are essential to careful diagnosis. Three of these cases illustrate lack of history of trauma where it had presumably occurred. In case one, alcohol clouded the picture and although the belly wall was negative for injury the duodenum had a contused appearance. So trauma may be assumed in this case. In case two, physical evidence was also lacking and the initial history was dubious, because the patient had reason to cover up the true story. Case three probably was one of delayed rupture and bleeding, with the initial injury occurring at a time when he had been drinking. Splenic injury might be more likely to occur in the alcoholic when abdominal muscles would be less likely to tighten reflexly for self protection.

There were, however, certain symptoms or signs in every case which indicated abdominal disaster. All had abdominal pain, tenderness and at least well

marked rigidity. In case three, the latter was severe enough to lead to a diagnosis of perforated peptic ulcer. In cases two and four faintness and dizzy spells added to the above symptoms pointed to internal hemorrhage. The shock and lowered blood pressure in one and four were additional aids. Kehr's sign (pain in the left shoulder) was helpful twice. In only one case (four) was pain localized to the left upper abdomen, and this was on the day of injury seven days prior to the rupture of his spleen. This pain may have indicated splenic contusion with subcapsular bleeding. It is interesting that Kehr's sign was not present then but showed up with the eventual rupture.

Two of these cases were immediate ruptures in the sense that they occurred within 48 hours. Case four was delayed, and three fits into the spontaneous group if we do not assume that he received a forgotten injury. This brings up a question regarding the amount of force that may be required to rupture a normal spleen. This organ is very friable. It lies between moveable stomach, colon, diaphragm and left kidney. It is attached to these moveable organs by splenocolic, gastro-splenic and lienorenal ligaments. It is also adherent to diaphragm and body wall. The latter is almost immovable. A squeezing force on the abdomen would tend to force the diaphragm up, but the colon or stomach, particularly if distended might drag towards the right. So this friable organ with a fixed attachment in one direction is pulled in another. A similar squeezing force on the chest would reverse the diaphragmatic force. So strains or stresses which would not be important as far as other organs are concerned could cause either a rupture of the spleen or a tear within its substance. In the former case there would be sudden and severe bleeding with corresponding symptoms. In the latter a small amount of bleeding would be controlled by pressure built up within the relatively tough capsule. Subsequent strains over a period of days or weeks would eventually result in tearing of the capsule, extrusion of clots, free bleeding and a case of apparent spontaneous rupture.

One other comment is, I think, in order. Rupture of the spleen as mentioned in case three may give rise to transplants of splenic tissue on bowel, mesentery or omentum. Berry and Erdman⁵ have drawn attention to this condition complicating a splenectomy for congenital hemolytic icterus. In their case the spleen was accidentally ruptured during splenectomy and the transplants (not accessory spleens as usually assumed) reproduced the above disease. This was discovered when a laparotomy was necessary for obstruction. Surgeons doing laparotomies on patients who have had splenectomies should be aware of this possibility. Storsteen and Remine⁶ have reviewed this subject as a result of one of their cases developing splenosis and obstruction.

CONCLUSIONS

- (1) Rupture of the normal spleen may occur without severe injury but is almost always due to trauma.
- (2) It should be high on the probable list in cases suspected of internal hemorrhage.
- (3) Splenosis should be suspected when there are symptoms of intestinal dysfunction in patients who have had splenectomies.

REFERENCES

1. Vere Nicoll, S. A.: Spontaneous Rupture of the Spleen,

British Medical Journal, 801 (April 12), 1952.
2. Knoff, Laurence M., and Harkness, Henry N.: Traumatic Rupture of the Normal Spleen, Surgery, 35:493-450.
3. Olander, George A., and Reimann, Arthur F.: Post Traumatic Intermittent Splenic Hemorrhage, Annals of Surg., 137-1:104-107.
4. Kirk, Thomas A., and Haynes, Lewis L.: Delayed Rupture of the Spleen, U. S. Armed Forces Med. Jr., 4:1489-1485 (Oct.), 1953.
5. Berry, C. Hartley, and Erdman, George L.: Traumatic Autoplastic Implants of Splenic Tissue, J. A. M. A., 152: 1227-1228 (July 25), 1953.
6. Storsteen, Kenneth A., and ReMine, William H.: Rupture of the Spleen with Splenic Implants: Splenosis, Annals of Surg., 137:551-557 (April), 1953.

HYPERTENSION — CAUSE OR EFFECT

Presentation of a Case

ANTHONY E. LEPORE, M. D., Gardiner General Hospital, Gardiner, Maine

There is no question in the vast majority of cases that the presenting signs and symptoms are the guideposts to the correct diagnosis. Occasionally, however, overemphasis on the evident, troublesome, and often striking manifestations of an illness may cloak the underlying condition which exists in the background. Just as the physician with some years of experience learns to think of the more common diseases first when confronted with certain clinical manifestations (and to be correct in most cases), so the old adage of letting the medical student diagnose the unusual case holds considerable truth. At times if one could be divorced of his patterns of thought and merely enumerate all the clinical conditions that could produce some of the findings, the rare case would not be so rare or be so often a diagnostic enigma.

CASE REPORT

The following case is presented.
First office consultation for this forty-one-year-old male was in September, 1951. Four months previously he had been admitted and studied at a medical center and no definite diagnosis had been made though organic neurological disease was strongly considered. In 1946 he had had an appendectomy for subacute appendicitis. At that time his WBC varied from 27,000, P 82, L/17, E/1 to 17,000, P 80, L/20, without evidence of acute infection. His BP 152/102. His present illness dated back to 1949 when he was forced to sell out his grocery store business because of nervousness. He complained of dizziness on motion of his head, agitation, and tremulousness. There was numbness of his hands up to his elbows and of his feet up to his knees. No headaches, sweats, anorexia, urinary or gastrointestinal problems. No loss of libido.

PHYSICAL EXAMINATION, 1951

Physical examination showed a nervous, agitated male. His weight 161 lbs., height 5 ft. 10 in., average build (his weight had been 200 lbs. four months previously, when he was placed on a low calorie diet). He had hyperactive quadriceps and achilles reflexes; hypoactive triceps and biceps; no Rhomberg, nystagmus, or Babinski. There was hypoaesthesia along both ulnar nerve distributions; interossei atrophy; fibrillary twitching of muscles of his hand. He had impaired hearing in his left ear. Ear drum was normal. Eyegrounds showed normal discs and blood vessels. Absent abdominal reflexes and very sluggish cremasteric reflexes. Abdomen and genitalia normal. Heart was enlarged one inch beyond left mid-clavicular line; pulse regular and 70/min., BP 182/112. Spinal puncture showed normal dynamics, clear fluid, Rbc 40, Wbc 9, protein 15 mgm.%, colloidal gold—negative, mastic and Hinton negative.

EXAMINATION, 1953

The patient was not seen again until November, 1953. He had been unable to work in this two-year interim. He had been seen by a neurologist and an internist and had received 10 electric shock treatments. He denied dizziness, headaches, roaring in his ears. He walked like an automaton and exhibited considerable somnolence. Neurological examination essentially unchanged. Eyegrounds showed no hemorrhages, AV nicking or papilledema. He had more interossei atrophy and tendency to hyperextend his fingers. BP 222/142. Urine—1.020., no sugar, albumin pH4, microscopic—negative. Spinal puncture IP220, FP170; normal dynamics; 8 c.c. clear fluid withdrawn; Protein 60; NPN 29; Rbc 6,110,-

000; Wbc 19,050; P 85, L/14, M 1; Hgb 110%, 17.15 gm.

In the next two months he showed no essential change except mental deterioration. He made a peculiar snapping noise with his lips; staggered in walking like a man partially intoxicated; had coarse tremors of his hands with considerable fumbling; and became irritable and cantankerous. He complained of more numbness of the ends of his fingers. There was increasing lethargy. There were bouts of uncontrollable laughter and crying. His blood pressure rose to 240/148. He began to put on weight, especially of the face, chest and abdomen. His skin was clear; his face became phlethoric; no increase in body hair. There was complete impotence. Recheck of his blood showed; Rbc 7.0, Wbc 20,950, Hgb 118, 18.13 gm. Platelets 210,000, Sedimentation rate—3.

In the last four months of life, he became steadily weaker and fatter. There was incontinence of urine and feces. He showed progressive tendency to bouts of laughter and crying. He became semicomatose, was unable to swallow, and finally over a period of ten days, lapsed into complete coma and died.

POSTMORTEM FINDINGS

The pertinent findings at autopsy were obesity; generalized arteriosclerosis (marked); cardiac hypertrophy; and a tumor of the right adrenal gland,

measuring one inch in diameter and black in color. The kidney or kidney pelvis were both compressed. Microscopically the tumor was of the adrenal cortex (Zona reticularis). The pituitary showed Croke cells.

DISCUSSION

This man of 44 died of a disease which lasted for a period of six years or longer. The clinical findings were primarily neurological but the polycythemia, hypertension and tendency to obesity (especially during the last 6-8 months) certainly make a composite of Cushing's syndrome. He had no pathological fractures, striae, or ecchymoses of the classical picture. Obviously, the ketosteroids and eosinophil count were not done because the diagnosis was never considered. And yet when one looks back on the white blood count at the time of appendectomy, (red blood count had not been done), there is a hint of onset of this condition in 1946. Therefore, the disease may be of very long standing, very slowly progressive, and diagnosed when one considers polycythemia, hypertension, and centripetal obesity under one entity. Very apparently neurological changes and mental deterioration may be precipitated early and to a striking degree by Cushing's Syndrome due to the severe hypertension and arteriosclerotic changes.

The Month in Washington—Continued from page 11

So much for what the Republican President hopes to get through Congress. It is too early to say how much of this program will have the support of the Congress, now under Democratic control. It is clear, however, that many leading Democrats want to enact some legislation the President didn't include in his program. In the early weeks of the session they introduced scores of bills to carry out their ideas.

Federal aid to medical education is prominent in the plans of many of the Democrats, and some of the Republicans. The bills cover a wide range, some restricted to construction grants but others offering help in meeting operating expenses and incentives to increase the number of students. Other bills offer federal grants to voluntary health plans to subsidize coverage of the indigent, the "medically indigent," the unemployed and the aged. Because the administration has declared itself opposed to subsidies, it is unlikely that any measures of this type will win the support of Mrs. Hobby's department and the White House.

Members on both sides of the aisle also are proposing greater emphasis on research seeking the causes and cures of such diseases as cancer, heart

disease, mental illness and arthritis. Some of these bills fit in with the Eisenhower program and philosophy, and are likely to have White House support at the hearings.

This tendency to stimulate more basic medical research, both at the federal level and through state grants, may be an important factor when Congress gets around to passing the appropriation bills for the various Institutes of Health, the research arm of U. S. Public Health Service.

Several years ago a Democratic Congress took a serious interest in a bill for federal aid to local public health departments. Some of the influential Democrats have revived this idea, and are working for its passage this session. As expected, the old Truman-Ewing plan for national compulsory health insurance again is before Congress. The first one to introduce a bill along these lines was Rep. John D. Dingell, a sponsor of the original plan. Later others joined with him in backing the idea, but up to now the open support for it is not extensive on Capitol Hill.

*Washington Office of the
American Medical Association.*

The Journal of the Maine Medical Association

THOMAS A. FOSTER, M. D., Portland, Editor

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The Journal

The 46th Volume of the JOURNAL appears with a new cover and with the hope that it will interest our subscribers increasingly as 1955 rolls along. The Editorial Board has given serious consideration to the change and has concluded that the appearance of a Table of Contents on the cover would stimulate more immediate desire to look inside.

We have instituted another policy for this year. It is the policy of combining contributions from two of our smaller hospitals for publication in one issue. With the coöperation of the Staffs at St. Andrews

Hospital in Boothbay Harbor and the Gardiner General Hospital, we are pleased at this time to present a well rounded group of medical papers. We have depended on the larger hospital staffs to supply us with material and at the same time we have always maintained an open door policy for independent contributions. We would be agreeable to correspondence with the chiefs of any hospital staff about arrangements for a combined issue and with any member of the Association concerning a single contribution.

Lecture Courses

It is customary for the JOURNAL to include every month notices of forthcoming lectures and medical meetings. It is our pleasure to print in this issue a schedule of two lecture courses arranged for practitioners in the southwesterly section of the state particularly but open to physicians from all sections.

Elsewhere in the JOURNAL you will find the complete schedules with information about the dates and locations. And we call your attention to them for consideration as excellent opportunities for postgraduate education.

The course in Electrocardiography, initiated by Dr. Eugene Drake last year, aroused sufficient interest to encourage a second course for this year. It includes a series of eleven weekly lectures given by qualified members of the American College of Physicians. And it has been approved for credits in the

postgraduate requirements of the Academy of General Practice. Here is an opportunity for academicians to embrace.

The other course, which will be conducted by Dr. Elton Blaisdell, offers a series of four lectures on Diets. At the request of the House Officers and resident physicians at the Maine General Hospital, Dr. Blaisdell has agreed to explain especially the practical methods for calculating diets. In these days of printed diet slips, the fundamental knowledge of proper diet composition is overlooked. This course plans to demonstrate the importance and value of "grass roots" information in presenting the right kind of diet for the right person. The House Officers are not the only ones who could benefit from the lectures and all physicians and nurses will be welcome.

More or Less Oxygen

Dr. Clement Smith and associates at the Children's Medical Center in Boston, are engaged in an extensive survey on the use of oxygen in premature and

full term new born infants. One stimulus for the development of the program arose from a study of the etiological factors in retrolental fibroplasia. The

theory has been advanced that prolonged and intensive flow of oxygen in the incubator may produce a deleterious effect on the vascular tissue of the eyes in new borns.

The program is a coöperative one, including observations recorded in a large number of nurseries located in different sections. Statistics on the duration of oxygen treatment and the amount used per minute in these cases have been subjected to a preliminary analysis. While we await any conclusive statements about oxygen as a causal factor in retro-

lental fibroplasia, we glean from these reports some opinions about the use of oxygen as a general measure.

Results so far reviewed seem to indicate that a more conservative use of oxygen will produce satisfactory results. Fewer liters per minute, 2 or 3 for example, will serve as well as 5 and 6; hours of flow will accomplish as much as days. Close observation and careful control with early trial exposures to room air, not routine procedures or standing orders, should be the responsibility of the attending physician.

March of Dimes

The annual March of Dimes currently in progress directs our attention to the continuing search for a preventative and a curative treatment for Poliomyelitis. The discovery of a vaccine by Dr. Salk and the Polio Field trials of the vaccine last spring marked a long step forward toward the ultimate goals of control and conquest.

The physicians of Maine played their part in "Field Trials." We have at hand reports from the experience with the use of the vaccine in two of our larger cities, Bangor and Portland.

In the Portland area 1196 children from 58 private, public and parochial schools in Portland, South Portland and Westbrook requested and received all three inoculations. Twelve hundred and five received the first injection, 1200 the first and second and 1196 all three; a remarkable final total, only nine fell by the wayside. The record for blood samples is not quite so impressive but is surprisingly high—208 first samples and 147 second samples. No serious reactions of a local or general nature were reported.

In the Bangor area including Bangor, Brewer, Orono, Old Town and Veazie, 519 children received all three injections and 112 children furnished blood samples on two occasions, another gratifying record. So far as we have been able to ascertain there were no untoward reactions in the Bangor group.

On October 8th, which is pretty well along in the Polio season, no cases of Polio had developed in the immunized children. Dr. Fisher reports that up to this time eight cases of Poliomyelitis had been reported in Portland and 28 in the Bangor area, however, only three cases had been reported in the families of children who were immunized, two of these instances were in Bangor and one in Portland.

We realize that no conclusions can be drawn from our experience in Maine. We must await the results of the studies to be made this spring; studies which will include all the children who were inoculated. While we wait we would like to take this opportunity to express thanks to all the people, doctors, nurses, volunteers, all "Polio volunteers," who participated in the trials. And we would like to salute especially the Public Health Officials: Dr. Dean Fisher, Dr. Edward W. Colby and Mr. William Carney who organized so successfully the undertaking of the trials.

This year the National Foundation has allocated \$9,000,000 for the purchase of vaccine. This amount of money added to the usual amounts appropriated for research, professional education and patient aid reaches \$64,000,000. A general and generous support is needed to carry on the program.

Well Done and Congratulations

From Detroit we have received a rather unique announcement about a Maine man who was born in Bangor.

Walter M. Chase, who has been associated with Ralph G. Sickels in the advertising department of Parke, Davis & Company for 34 years, will retire December 31st and will cause a separation of a shoulder to shoulder team which has existed from the first day they met in the Parke, Davis office.

Mr. Chase graduated from the University of Maine College of Pharmacy in 1910 and has been honored with many high offices in the field of Phar-

macy. The advertisements stressing "See Your Doctor" and "Know Your Pharmacist" themes, which he helped to develop, are familiar to Maine doctors.

We congratulate Mr. Chase on his distinguished service to medicine through his appealing advertisements and wish him happiness in his retirement. We note a little wryly that he plans to spend his days of retirement in Grosse Pointe Park, Michigan. We only wish that the incomparable valley and glorious bay of the Penobscot and the hills of Penobscot and Washington Counties had called him home.

Dramamine's® Effect in Vertigo

Dramamine has become accepted in the control of a variety of clinical conditions characterized by vertigo and is recognized as a standard for the management of motion sickness.

Vertigo, according to Swartout, is primarily due* to a disturbance of those organs of the body that are responsible for body balance. When the posture of the head is changed, the gelatinous substance in the semi-circular canals begins to flow. This flow initiates neural impulses which are transmitted to the vestibular nuclei. From this point impulses are sent to different parts of the body to cause the symptom complex of vertigo.

Some impulses reach the eye muscles and cause nystagmus; some reach the cerebellum and skeletal muscles and righting of the head results; others activate the emetic center to result in nausea, while still others reach the cerebrum making the person aware of his disturbed equilibrium. *Vertigo may be caused by a disease or abnormal stimuli of any of these tissues involved in the transmission of the vertigo impulse, including the cerebellum and the end organs.*

A possible explanation of Dramamine's action is that it depresses the overstimulated labyrinthine structure of the inner ear. Depression, therefore, takes place at the point at which these impulses, causing vertigo, nausea and similar disturbances, originate. Some investigators have suggested that Dramamine may have an additional sedative effect on the central nervous system.

Repeated clinical studies have established Dramamine as valuable in the control of the symptoms of Ménière's syndrome, the nausea and vomiting of pregnancy, radiation sickness, hypertension vertigo, the vertigo of fenestration procedures, labyrinthitis and vestibular dysfunction associated with antibiotic therapy, as well as in motion sickness.

Any of these conditions in which Dramamine is effective may be classed as "disease or abnormal stimuli"* of the tissues including the end organs (gastrointestinal tract, eyes) and their nerve pathways to the labyrinth.

Dramamine (brand of dimenhydrinate) is supplied in tablets of 50 mg. and liquid (12.5 mg. in each 4 cc.). It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association. G. D. Searle & Co., Research in the Service of Medicine,



The site of Dramamine's action is probably in the labyrinthine structure.

*Swartout, R., III, and Gunther, K.: "Dizziness;" *Vertigo and Syncope*, GP 8:35 (Nov.) 1953.

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COUNTY SOCIETY NOTES

Cumberland

John R. Lincoln, M. D., Director of Anesthesia at the Maine General Hospital, Portland, Maine, was elected an associate member of the Board of Governors of the American College of Anesthesiologists at a recent convention in Cincinnati, Ohio. At the same meeting he was elected alternate director of the American Society of Anesthesiologists' second district: Maine, New Hampshire and Vermont. Both positions carry a term of three years.

Hancock

December 8, 1954

The annual meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, Maine, on December 8, 1954. There were twelve members present at the meeting, which was called to order by the president, Dr. Mason Trowbridge of Ellsworth.

The following officers were elected for 1955:

President, Dwight Cameron, M. D., Northeast Harbor.

Vice-President, John T. Connell, M. D., Blue Hill.

Secretary-Treasurer, Arthur M. Joost, Jr., M. D., Bucksport.

Censor, Charles H. Knickerbocker, M. D., Bar Harbor (3 years).

Delegate to the Maine Medical Association, James H. Crowe, M. D., Ellsworth. Alternate, Philip L. Gray, M. D., Blue Hill.

Councilor, Raymond E. Weymouth, M. D., Bar Harbor.

Hadley Parrot, M. D., of Bangor, gave an interesting talk on the subject, Familial Xanthomatosis and Coronary Disease, which was illustrated with slides.

ARTHUR M. JOOST, JR., M. D.,
Secretary.

New Members

Androscoggin

Simon C. Beaudet, M. D., 453 Main Street, Lewiston.

John T. Konecki, M. D., St. Mary's Hospital, Lewiston.

Daniel R. Shields, M. D., 369 Main Street, Lewiston.

Channam Tze, M. D., 327 Main Street, Lewiston.

Robert D. Wakefield, M. D., Central Maine General Hospital, Lewiston.

Kennebec

Kenneth K. Berman, M. D., Veterans Administration, Togus.

Robert L. Ohler, M. D., Veterans Administration, Togus.

Francis A. Spellman, M. D., Veterans Administration, Togus.

COMING MEETINGS

American Medical Association: George F. Lull, M. D., 535 North Dearborn Street, Chicago 10, Illinois, Secretary.

1955 Annual Meeting, Atlantic City, New Jersey, June 6-10.

1955 Clinical Meeting, Boston, Massachusetts, November 29-December 2.

Maine Medical Association: Esther M. Kennard, 142 High Street, Portland 3, Maine, Secretary.

1955 Interim Meeting, House of Delegates, Bangor, Maine, April 16.

1955 Annual Session, The Samoset, Rockland, Maine, June 19, 20, 21.

NOTICES

Course In Clinical Electrocardiography
Maine General Hospital — Portland, Maine
Assembly Room — 7.30 P. M. Each Wednesday

Date	Subject
Jan. 12	The History of Graphic Methods—Conducted by Eugene H. Drake, M. D.
Jan. 19	Theory of the Electrocardiogram — Conducted by Harold L. Osher, M. D.
Jan. 26	The Normal Electrocardiogram — Conducted by Ralf Martin, M. D.
Feb. 2	Ventricular Hypertrophy and Conduction Disturbances — Conducted by Frederick Brown, Jr., M. D.
Feb. 9	The Electrocardiogram in Myocardial Injury, Ischemia, Angina; Exercise Tests — Conducted by Edward A. Greco, M. D.
Feb. 16	The Electrocardiogram in Myocardial Infarction—Conducted by Eugene H. Drake, M. D.
Feb. 23	The Electrocardiogram in Hypertension, Pericarditis, Congenital Heart Disease, Cor Pulmonale — Conducted by Ralf Martin, M. D.
Mar. 2	Electrocardiographic Effects of Drugs, Electrolyte Imbalance, Metabolic Diseases — Conducted by Ralf Martin, M. D.
Mar. 9	Arrhythmias (I) — Conducted by Harold L. Osher, M. D.
Mar. 16	Arrhythmias (II) — Conducted by Eugene H. Drake, M. D.
Mar. 23	The Electrocardiogram in Differential Diagnosis—Conducted by Harold L. Osher, M. D.

Department of Health and Welfare
Division of Maternal and Child Health
(Including Services for Crippled Children)
Clinic Schedule — January Through June, 1955

ORTHOPEDIC CLINICS

Portland — Maine General Hospital, 9.00 a. m.: Jan. 10, Feb. 14, Mar. 14, Apr. 11, May 9, June 13.
Lewiston — Central Maine General Hospital, 9.00 a. m.: Jan. 21, Feb. 18, Mar. 18, Apr. 15, May 20, June 17.
Rumford — Community Hospital, 1.30 p. m.: Mar. 16, June 15.
Waterville — Thayer Hospital, 1.30 p. m.: Feb. 24, June 23.
Rockland — Knox County Hospital, 1.30 p. m.: Feb. 17, May 19.
Machias — Normal School, 1.30 p. m.: Jan. 5, Apr. 6.
Presque Isle — Northern Maine Sanatorium, 9.00 a. m. and 1.00 p. m.: Jan. 11, Mar. 9, May 10.
Houlton — Aroostook General Hospital, 9.00 a. m.: Mar. 8.
Fort Kent — Peoples Benevolent Hospital, 10.00 a. m.: Jan. 12, May 11.
**Bangor* — Eastern Maine General Hospital, 1.30 p. m.: Jan. 27, Mar. 24, May 26.
Augusta — Augusta General Hospital, 1.00 p. m.: Apr. 28.

CARDIAC CLINICS

Portland — Maine General Hospital, 9.00 a. m.: Will be held every Friday with the exception of holidays.
Bangor — Eastern Maine General Hospital 9.00 a. m.: Jan. 28, Feb. 25, Mar. 25, Apr. 22, May 27, June 24.

CLEFT PALATE EVALUATION CLINICS

Portland — City Dispensary, 65 India Street, 10.00 a. m.: Feb. 8, May 17.

PEDIATRIC CLINICS

**Bangor* — Eastern Maine General Hospital, 1.30 p. m.: Jan. 28, Feb. 25, Mar. 25, Apr. 22, May 27, June 24.
**Waterville* — Thayer Hospital, 1.30 p. m.: Jan. 4, Feb. 1, Mar. 1, Apr. 5, May 3, June 7.
**Presque Isle* — Northern Maine Sanatorium, 1.30 p. m.: Jan. 26, Mar. 23, May 25.
**Several of the Pediatric Clinics, and also Bangor CC Clinics, will be two-session clinics.*

** By Appointment Only*

Lectures on Diet
Maine General Hospital, Portland, Maine

A course of four lectures on the practical application of diets in Clinical Medicine will be given at the Maine General Hospital from 6.00 to 7.00 P. M. on January 18th, January 25th, February 8th and February 15th.

Subjects to be discussed include the following:

- Diabetes Mellitus
- Diseases of the Heart and Blood Vessels (Rice diets, Low Sodium, Sodium-poor and Low Cholesterol)
- Gout
- Elimination Diets in Allergy
- Irritable Colon
- Sprue
- Obesity
- Undernutrition
- Tube Feedings
- Hepatitis
- Peptic Ulcer

House officers, practicing physicians and nurses are cordially invited.

The lectures will be conducted by Dr. Elton R. Blaisdell of Portland, under the auspices of the House Officers Association of the Maine General Hospital.

Mental Health Clinic Schedule

The Division of Mental Health offers psychiatric clinic service to children and adults in the following cities:

Portland — Health and Welfare Department, 178 Middle Street. Every Tuesday.
Lewiston — Out-Patient Department, Central Maine General Hospital. Every Monday.
Augusta — Bureau of Health, Division of Mental Health. By Appointment.
Waterville — Mansfield Clinic, Thayer Hospital, 3rd Wednesday.

Bangor — Out-Patient Department, Eastern Maine General Hospital. 1st Wednesday afternoon.

Valentine School, Union Street. 1st Thursday.

A traveling clinic visits the following towns and cities at irregular intervals: Caribou, Houlton, Lincoln, Machias, Rockland and Rumford. The Portland Clinic is open daily with a staff of 1 psychiatric social worker and 1 psychologist. The psychiatrist is in attendance on Tuesdays. The other clinics are staffed by a psychiatrist and a psychologist.

Referrals may be made by private physicians, parents, families, school agencies, school superintendents, Department of Education, all divisions within the Department of Health and Welfare. Application blanks may be obtained from the main office of the Division of Mental Health — State House, Augusta.

Patients are seen by appointment only. Each child must be accompanied by a parent or guardian. Applications should be sent to the Director, Division of Mental Health, Department of Health and Welfare, State House, Augusta.

State of Maine

Board of Registration of Medicine

Adam P. Leighton, M. D., 192 State Street, Portland, Secretary.

List of Licentiatees passing the State Board Examinations, November 9 and 10, 1954.

Through Examination

Lawrence M. Agan, M. D., 10 Ideal St., Chelmsford, Mass.

Robert Berkow, M. D., 40 Nash St., Bangor, Maine.

Anthony Betts, M. D., New Jersey State Hospital, Trenton, N. J.

Michael L. Cancilla, M. D., 14 Merriam St., Pittsfield, Mass.

Leo A. Day, M. D., 27 Kimball Road, Watertown, Mass.

Peter I. Kenmore, M. D., 34 Prospect Ave., Larchmont, N. Y.

Stephen P. Murphy, M. D., 4047 North Kenmore, Chicago 13, Ill.

Jose K. Rosales, M. D., 24 Fenwood Road, Boston, Mass.

James C. Ryan, M. D., St. Mary's Hospital, Port Arthur, Texas.

Francesco S. Tolone, M. D., Univ. of Chicago X-Ray Dept., Chicago, Ill.

George I. Wilson, M. D., Hartland, N. B., Canada.

Through Reciprocity or Endorsement

Salah T. Ali, M. D., Graduate School of Medicine, Univ. of Pennsylvania, Philadelphia 4, Pa.

Robert E. Blanchard, M. D., Belfast, Maine.

Harry L. Day, M. D., 67 Military St., Houlton, Maine.

Arnold Eicens, M. D., 406 So. Sandusky Ave., Bucyrus, Ohio.

Charles A. Hannigan, M. D., 30 High St., Houlton, Maine.

Margaret H. Hannigan, M. D., 30 High St., Houlton, Maine.

Hossein Hashemi, M. D., St. Mary's Hospital, 816 Betts St., Cincinnati, Ohio.

Byron C. Hollenbach, M. D., Rockland, Maine.

Theodore S. H. Hsu, M. D., Addison, Maine.

John A. Hunter, M. D., 232 Court St., Portsmouth, N. H.

William F. Jacobs, M. D., Raymond, Maine.

James H. Johnson, Jr., M. D., 15 Sheridan St., North Easton, Mass.

Merrill J. King, M. D., 22 White St., Rockland, Maine.

Frank N. Lee, M. D., 96 Broad St., Milford, Conn.

Morton McMichael, M. D., 73 Deering St., Portland, Maine.

Charles E. Niles, M. D., P. O. Box A, West Brentwood, N. Y.

John A. Root, M. D., Maine General Hospital, Portland, Maine.

Robert Stein, M. D., Marine Hospital, Portland, Maine.

Hsiang L. Tseng, M. D., 836 Wellington Ave., Chicago, Ill.

Leopold A. Viger, M. D., 188 Elm St., Biddeford, Maine.

William W. Ward, M. D., Maine General Hospital, Portland, Maine.

Michael L. Weaver, M. D., 32 Federal St., Brunswick, Maine.

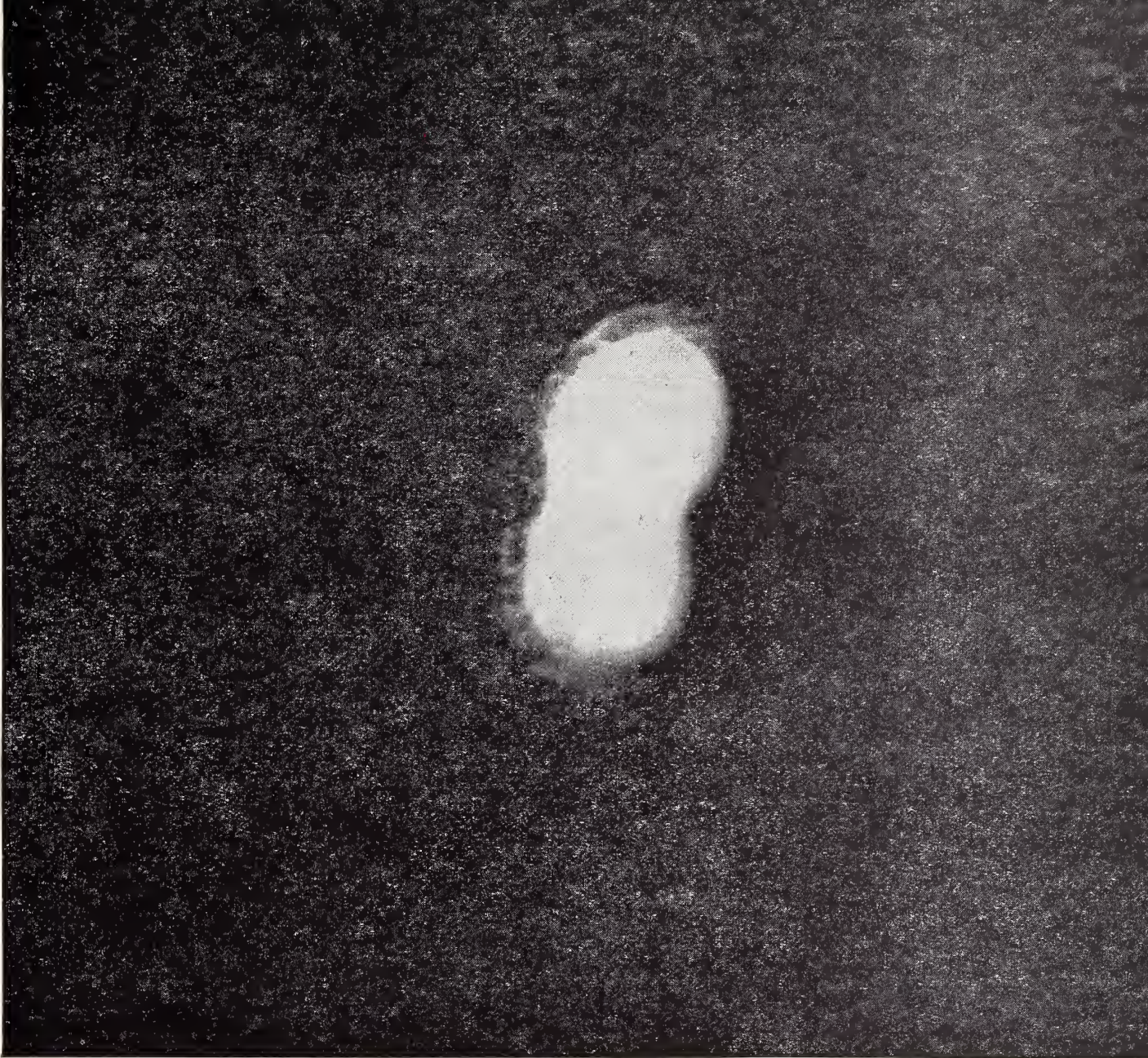
Harvard University School of Public Health Announces Public Health Scholarships

Scholarships for the Academic Year 1955-56 will be granted to individuals of high professional promise in awards ranging from part tuition to tuition plus a stipend, according to the qualifications and financial needs of the applicants. The Scholarship Funds are limited and are primarily intended for citizens of the United States.

A catalogue of the School, Admission and Scholarship applications, and further information may be obtained by writing the Secretary, Harvard School of Public Health, 55 Shattuck Street, Boston 15, Massachusetts.

Scholarship applicants must return completed admission and scholarship applications to the Harvard School of Public Health by March 1, 1955. Scholarship awards will be announced May 1, 1955.

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CORRESPONDENCE

Veterans Administration Center

Togus, Maine

November 16, 1954.

THOMAS A. FOSTER, M. D.
Editor, Maine Medical Journal
 142 High Street
 Portland 3, Maine

Dear Dr. Foster:

We should very much appreciate your publishing this information in the MAINE MEDICAL JOURNAL so that the physicians of the State may become more cognizant of some of the practices and policies of the Veterans Administration's medical program:

First, the policy of hospitalization remains unchanged. Any veteran of any wartime service, including the Korean conflict beginning June 27, 1950, through to the present day, and peacetime veterans with service-connected diseases or injuries may be entitled to VA hospitalization if separated under conditions other than dishonorable under the following priority system:

First—Those needing hospitalization because of injuries or diseases incurred or aggravated in line of duty.

Second—Those with non-service-connected disabilities who state under oath that they are financially unable to pay hospital charges elsewhere. These veterans must wait until a bed becomes available.

At the present time, admission of veterans to the Neuropsychiatric Service at Togus is being limited to those veterans with mental illness who fall into the first priority. Veterans with mental illness who fall into the second priority must, at the present time, be hospitalized elsewhere.

For purposes of hospitalization, World War II veterans and veterans with service on or after June 27, 1950, who

develop an active psychosis within two years from the date of their separation from active service are deemed to have incurred the disability in active service and fall under the first priority group above.

Telephonic or other communication between the veteran's physician and the Medical Admission Service at Togus will make for more expeditious handling of the veteran's case. In some instances where the veteran has been assured of medical treatment and hospitalization at the Veterans Administration by his own doctor — who has failed to contact the Veterans Administration — the veteran has been found to be either medically or legally ineligible for treatment.

Occasionally a non-service-connected veteran is referred to this hospital solely for physical check-up, laboratory or X-ray examination. Unless for a condition which is service-connected, or as a part of determining need for hospitalization, we are not authorized to perform such tests. Also, non-service-connected veterans are occasionally referred to the hospital with the request they be furnished a prosthetic appliance. Again, unless service-connected, or as a part of hospitalization for a disease or injury, this is not permitted. The medical authorities at this Center will gladly discuss regulations concerning furnishing of prosthetic appliances or their repair with any physicians making inquiry.

With the written consent of the veteran, a summary of his hospitalization, with findings and recommendations, will be furnished to his physician.

The administrative officials at this Center wish to thank the members of the Maine Medical Association for their fine coöperation and will be most willing at any time to clarify problems which may arise.

Very truly yours,

ISRAEL ZELTZERMAN, M. D.,
Chief Medical Officer.

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Our salesmen, in fact all salesmen actually work for you. They are the link between you and your suppliers — the fellows that help keep you posted on new equipment and the developments in your field. And it is their constant striving that keeps the wheels of industry turning.

Too often, we fail to realize how much we owe these men, but with a little time and consideration our debt can be easily paid.

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TO OUR ADVERTISERS:

We extend our sincere thanks for your patronage during 1954.

Your recognition of our Journal has enabled us to produce a publication worthy of its place in medical literature.

Our members have found your advertisements informative and helpful in the securing or prescribing of accepted products and services during the past year.

It is a certainty that they will continue to patronize the concerns whose advertisements appear regularly in our pages.

*Our Best Wishes
 for a
 Successful and Prosperous
 1955*

The JOURNAL of the
 MAINE MEDICAL ASSOCIATION

TUBERCULOSIS ABSTRACTS*

Issued by the National Tuberculosis Association

An Experience with the Large Routine Chest Film in a Rural Hospital

By J. W. Boyd, M. D., *The Ohio State Medical Journal*, September, 1954.

In this era in which the lay press and various medical groups are persistently advocating routine, periodical physical examinations which include a chest roentgenogram the physician has an excellent opportunity to discover early lesions. Every physician knows that the best chances to cure a disease come in its early symptomless phase, when it usually responds to treatment. This is particularly true in tuberculosis and lung malignancy.

By definition routine chest examinations are those which are conducted to screen persons with abnormal changes of the chest from persons with normal chests. The patients with advanced disease concern us less than those with minimal disease. The former group will seek medical advice because of the distressing symptoms, but the latter will walk the streets with a minimal lesion, unknowingly jeopardizing their own lives and the lives of others. For mass chest surveys the 35mm., 70 mm., or the four by ten stereoscopic films are available, as well as the full size film or 14 by 17 inch. Survey chest X-rays in hospitals or in the general population are approved as a screening device if so conducted that well-qualified professional and technical personnel are utilized and sincere efforts are made to follow-up the positive individuals properly.

Finding a chest lesion is only the beginning of the screening process. It is often difficult to differentiate tuberculosis from lung malignancy both clinically and radiographically. Any patient who presents an abnormal shadow on the screening film should have a more complete X-ray examination, including fluoroscopy, lateral projections and, many times, oblique projections. Tuberculin tests and sputum and gastric examinations for tubercle bacilli are essential. Cytologic examinations and bronchoscopy with biopsy should be done if indicated.

It should be emphasized that the admission chest film for the most part is a screening process and not diagnostic. Since the microfilm has been in use, numerous abnormalities of the heart and great vessels have been discovered which may have otherwise been overlooked.

In November, 1952, the hospital board, administrator and medical staff of Detwiler Memorial Hospital, Wauseon, Ohio, decided to do routine admission chest films on all patients over 12 years of age, admitted for a period of 24 hours or more. Only one examination would be done on a patient in a six-month period regardless of the number of admissions of that patient. As the hospital has only 60 beds with approximately 3000 admissions yearly, the installation of a microfilm unit was impractical. It was agreed to use the large film or 14 by 17 inch. The fee charged was to be large enough to cover the expense of the radiology department but reasonable so that patients would not be discouraged from having the examination.

An interested and educated staff is a necessity if this program is to be successful. It is equally important that all of the hospital personnel understand the purpose of and co-operate in the program. The examination was not to be mandatory, but each staff physician was to explain to his patient its value and availability. Obviously a perfect record was not expected, but it is estimated that at least 95 per cent of the patients over 12 years of age obtained the chest roentgenograms.

The chest film should be taken as soon as possible after admission, in order to protect the hospital personnel and to assure effective follow-up if a lesion is discovered. The procedure increases in value if the recommendations of the roentgenologist for further investigation are followed and a final diagnosis is established.

Statistical studies have shown that the incidence of tuberculosis is higher in patients in general hospitals than in the general population. It has also been shown that there is more tuberculosis among pregnant women than in the general population. It is often difficult to obtain an admission film

on an obstetrical case. Therefore, it is advised that maternity cases be referred to the hospital for a chest film during pregnancy, preferably during the last trimester.

In a 12-month period a total of 1205 admission films were taken at Detwiler Hospital. The films classed as "routine" do not include patients with chest complaints or patients suspected of a chest disease. Of the 1205 films taken, 133 or 11 per cent, presented some type of significant abnormality or finding.

ANALYSIS OF LARGE ADMISSION CHEST FILMS SHOWING SIGNIFICANT FINDINGS

Significant findings	Number	Per cent distribution
Total	133	100
Abnormalities of the heart and great vessels	61	46
Rib abnormalities (all were cervical ribs except metastatic destruction in one case)	11	8
Diaphragm abnormalities	5	4
Lung disease — includes pneumonia, tuberculosis, bronchiectasis, fibrosis due to infection or occupation	50	38
Neoplasms	6	5

It must be stressed that the figures in the table represent roentgen diagnoses only and that only a small number of these have been proven to date. The first group of figures is most striking. The abnormalities of the cardiovascular system consisted largely of enlarged hearts or a cardiac configuration suggesting rheumatic heart disease. All films were taken at a 72-inch distance so that these were readily recognized. The study, although of a small number of cases, shows a much larger incidence of abnormal heart silhouettes than has been reported in surveys in which the small microfilm was used.

Several reported studies of surveys of admissions to general hospitals have shown that a routine chest X-ray discloses a higher percentage of abnormalities than any other single routine hospital laboratory examination. There is also a definite increase in the number of lesions detected on the large film (14 by 17) as compared to the microfilm. However, the microfilm is still undoubtedly the most satisfactory and economical method in large screening processes. In hospital screening the advantages of the large film must be considered. It is felt that the size of the hospital makes no difference.

A community-wide chest X-ray program involves large numbers of people and organizations. The community-wide survey also represents a unique opportunity for a community to rethink its tuberculosis and cancer control program. It can be the starting point for an all-out effort to eliminate tuberculosis and to conquer lung malignancy. Its success depends upon the breadth of understanding and exchange of ideas which the survey itself engenders in those concerned with its management.

In the hospital program the coöperation of all hospital personnel cannot be overemphasized particularly that of the medical staff. The investment of a few minutes of the time of the physician in explaining to the patient about the value of routine chest film and the expenditure of a relatively small sum of money on the part of the patient, may pay great dividends in years of life.

(The printing of Tuberculosis Abstracts is made possible by the coöperation of your local tuberculosis and health association.)

* From Vol. XXVIII, January, 1955, No. 1.



The Journal of the Maine Medical Association

Volume Forty-Six

Portland, Maine, February, 1955

No. 2

ELONGATED STYLOID PROCESS

FREDERICK T. HILL, M. D., Waterville, Maine*

Occasionally one may encounter cases presenting bizarre neuralgic symptoms in the neck or pharynx which may be difficult to account for. Pain in these regions may be due to an elongated styloid process impinging on adjacent structures, in patients who previously have undergone tonsillectomy. The possibility of this condition as a cause of symptoms frequently is overlooked. The styloid process, normally about 2.5 c.m. in length, may present a varying degree of elongation, sometimes being irregularly curved in the so-called ram's horn configuration. This is due to ossification extending down the stylohyoid ligament, which, together with the styloid process, is derived from Merkel's cartilage. Sometimes this may project into the tonsillar fossa, indenting the fibers of the superior constrictor muscle. Many cases cause no symptoms until, as a result of tonsillectomy, scar tissue forms over the tip of the process in the fossa. Eagle¹ has called attention to this condition, reporting a relatively large number of cases. In addition he has described a syndrome of pain in the neck following the distribution of the carotid artery due to pressure of the styloid process, either mesially upon the internal carotid, or laterally upon the external vessel.

An elongated styloid process presenting in the tonsillar fossa, may cause pain in the pharynx, radiating to the neck, sometimes referred to the ear, and more severe during the act of swallowing. As before stated, this may not be manifest until after tonsil-

lectomy, due to scar tissue over the process, involving fibers of the ninth, fifth and, rarely the seventh and tenth nerves. Patients may complain that their throats did not heal completely after operation or they may feel there is a foreign body in the pharynx. These cases, at times, have been confused with glosso-pharyngeal neuralgia. While Eagle states that the type of pain is usually different, being constantly nagging but not severe, in contra-distinction to the sharp lancinating pain typical of neuralgia of the ninth nerve; Loser and Caldwell² reported five cases of glosso-pharyngeal neuralgia occurring in the presence of an elongated styloid process.

They explain the glosso-pharyngeal involvement on an anatomical basis. An elongated styloid process projects downward and forward between the lateral process of the atlas posteriorly and the angle of the mandible anteriorly. The glosso-pharyngeal nerve is in intimate relationship with the process, so that rotation of the head or opening of the jaw may cause mechanical irritation by compressing adjacent tissue between the styloid process and either the lateral process of the atlas or the angle of the mandible.

DIAGNOSIS

The diagnosis is based upon the history of pain and upon palpation meeting a firm bony resistance in the tonsillar fossa, especially in the region of the upper pole. Firm pressure on the process should reproduce the pain complained of by the patient. Eagle¹ states that, if the process may be palpated it

* From Thayer Hospital Otolaryngological Service.



Fig. #1. Elongated Styloid Process causing symptoms of pain and soreness in right side of pharynx and neck. Relieved by removing 2 c.m. of process.



Fig. #2. Elongated Styloid Process with ossification of stylo-hyoid ligament. Styloid process first noted at time of tonsillectomy. Symptoms developed some 3-4 years later.

always is elongated. Not infrequently an elongated process may be encountered during a tonsillectomy, giving the appearance of a rather sharp projection, medially or forward in the fossa, covered with muscle and fasciae. No significance need be attached to this unless it be giving rise to symptoms.

If palpation of the tonsillar fossa with the finger reveals evidence of an elongated styloid process, this should be confirmed by roentgenograms. Lateral films are used to determine the length of the process; the posterior-anterior position shows its projection and delineates the tip.

TREATMENT

The treatment of an elongated styloid process giving rise to symptoms is surgical. The procedure devised by Eagle is very satisfactory.

The usual preoperative preparation of the patient is carried out. Ether anesthesia is employed. While Eagle operates with the patient in the supine position, the writer has found that the upright position affords better visualization in stripping the process. With endo-tracheal anesthesia, the pharynx packed off and suction always available, this seems to facilitate a somewhat blind and difficult procedure. An incision is made in the tonsillar fossa over the tip of palpable styloid process. This is then spread with scissors or a hemostat exposing the tip. The attached muscles are then stripped from the process, using the finger on the mesial surface and a curved elevator for the lateral and posterior portion. Sometimes a long Killian nasal speculum may be inserted for retraction and to aid visualization but much of the procedure must be done by sense of feeling. After the process has been exposed the styloid ligament at the tip is severed with scissors. The length of the process to be removed is determined by study of the roentgenograms. Usually this is two to three c.m. A long sphenoid ronguer is used to fracture the process. Prior to this, the exposed end should be grasped by a curved clamp to prevent retraction into the muscles. It is then removed, using care not to injure either the external or internal carotid arteries, or the facial nerve. After palpation to assure the operator that sufficient process has been removed the incision is closed with either catgut or silk.

There is no special after-treatment other than for any pharyngeal surgery. Patients generally are able to leave the hospital on the third or fourth post-operative day.

Eagle reports one case of marked edema of the neck following bilateral operation which was ascribed to sensitivity to sulfanilamide used locally in the wound. The present day tendency is not to use sulfa derivatives in wounds and it would seem that prophylactic penicillin therapy preoperatively might be preferable. In two of Eagle's cases the fractured portion of the styloid process was retracted into the muscles and never recovered. One of these persisted in having mild symptoms.

In one of the author's cases there was quite a severe local reaction due to difficulty in stripping the muscles from the process, necessitating hospitalization for ten days.

The styloid process can be approached externally in a procedure devised by Loser and Caldwell. This makes use of an incision extending down the anterior border of the sterno-mastoid muscle with a secondary incision forward below the angle of the jaw. The deep fascia is separated by blunt dissection and the contents of the carotid sheath are displaced pos-

teriorly to expose the styloid process. Fascia and muscular attachments are stripped from the process and two or three centimeters removed with a ronguer.

For the typical case with pharyngeal symptoms and the process palpable in the tonsillar fossa, the intra-oral procedure of Eagle is preferable. Should the styloid process be suspected of causing symptoms by pressure on the carotids, especially if the process deviates laterally, the external approach possesses advantages.

SUMMARY

Certain bizarre symptoms of pain in the pharynx and neck in tonsillectomized patients may be due to

elongated styloid process presenting in the tonsillar fossa. Palpation of the fossa will reveal the elongation. If pressure on the process reproduces the pain the diagnosis is confirmed. While not of common occurrence one should be alert to the possibility of an elongated styloid process in all cases of pharyngeal and neck pain.

REFERENCES

1. Eagle, W. W.: "Elongated Styloid Process. Further Observations and a New Syndrome." *Arch. Otolaryn.*, 47:5, 330-340, May, 1948.
2. Loeser, F. H., and Caldwell, E. P.: "Elongated Styloid Process. A cause of Glossopharyngeal Neuralgia." *Arch. Otolaryn.*, 36:2, 198-202, August, 1942.

BRONCHIECTASIS IN ALLERGIC ASTHMATICS

SAMSON FISHER, M. D., and LORING W. PRATT, M. D.*

INTRODUCTION

Bronchiectasis with chronic bronchial infection is a common cause of asthmatic patients becoming unresponsive to treatment. The condition requires recognition, since the indicated treatment is an altogether separate regime from the allergic management.

This paper deals with patients who were known allergics before clinical bronchiectasis became evident. It may not be clear whether the bronchiectasis resulted from the asthma, or developed incidental to the asthma. The causal relationship would not alter the immediate plan of treatment, but might indicate that more rigid control of the asthma is necessary. The important point is that the chronic infection must be approached in the same way as it would be in a non-asthmatic, and not on the basis that this is an allergic reaction to the infecting organisms or their products. It is felt that once the presence of chronic bronchial infection is suspected, the presence or absence of bronchiectasis must be determined. The diagnosis requires bronchoscopy with aspiration for examination, preparatory to making bronchograms, and at times for making the bronchogram under direct bronchoscopic visualization.

It is not pertinent to this paper to enter the argument as to whether the patient with chronic bronchitis or bronchiectasis who wheezes is or is not in fact an asthmatic.¹ Rather, we wish to bring attention to the case of the known asthmatic who develops these complications, and to outline the proper course of study and therapy for his case. There is a significant difference in the clinical evaluation of such cases which may lead the physician astray. A group of symptoms that should ordinarily suggest bronchiectasis, may not be fully appreciated in a chronic asthmatic, since the asthmatic symptoms dominate the clinical picture.

EARLY EVALUATION OF CHANGES

It is necessary to be on the alert for a change of symptoms which may indicate that the allergic condition is complicated by a chronic bronchial infection.² If a known asthmatic begins to have more frequent or more persistent paroxysms, or the attacks become less responsive to the same treatment, there is a temptation to give the patient new forms or more intensive forms of allergic treatment. Possibly the patient will be subjected to re-evaluation in an attempt to discover new allergenic factors. Steroid therapy may be resorted to. All of these procedures may be desirable, but of little avail in the presence of infection.

When should chronic bronchial infection be suspected? The average allergic asthmatic patient is to a great extent predictable. Paroxysms may occur daily or seasonally. Various "trigger" factors such as cold air, acute infections or damp weather may precipitate attacks. Unknown factors in a particular place may produce an attack. But very often, whatever the cause in a given patient, the same circumstances repeatedly prevail. Such patients usually are symptom-free between attacks, feel vigorous, and carry on their work and social activities freely. If such a patient begins to have asthma without regard to the season, or time of day, or the surroundings; if there is a lag in vitality with new complaints of fatigue; then superimposed infection should be suspected. Attacks of asthma may now be associated with, or replaced by febrile episodes with the production of purulent sputum. Antibiotics may be effective in terminating the attack. The diagnosis may be suspected by the development of overt symptoms of bronchiectasis, such as the production of large quantities of foul sputum, chronic cough, hemoptysis, or repeated episodes of pneumonia.³ It is necessary, however, to bear in mind that these symptoms may

* From the Thayer Hospital, Waterville, Maine.

be absent, or minimal. Confusion arises mainly because the paroxysms of asthma are the presenting symptom.

SIGNS OF COMPLICATIONS

If a good history is obtained, it may be possible to fix accurately the date when the patient changed from an uncomplicated asthmatic to one with superimposed bronchial infection. The usual history is that the patient had an acute lower respiratory infection, perhaps spoken of as "a chest cold." With the subsidence of acute symptoms, the patient was left with a cough and wheeze that could not be controlled as in the past. Such a patient may be seen because of the persistence of his symptoms, or because of their severity. The significant feature is the abrupt change in the course of the patient's disease.

If such a history cannot be obtained, the physician should become suspicious of the presence of bronchial infection after a reasonable period of observation and an unsuccessful trial of allergic therapy. What constitutes an adequate period of observation and trial of therapy depends upon the particular situation. In general it is felt that if a patient is hospitalized in a private room with maximum dust avoidance precautions, and put on a diet consisting of a limited number of foods that are not ordinarily important items in the patient's usual diet, there should be a definite favorable response within several days. During the pollen season, the time element is a more important factor. Symptoms of the pollen asthmatic should fluctuate fairly well with the pollen peaks, and some known but untreated hayfever patients can serve as controls. If the patient in question does not respond to hospitalization, or follow the pollen fluctuations, it is well to presume that some factors other than allergy are contributing to the patient's pulmonary disease.

Throughout this period of observation it is necessary to evaluate any intercurrent flare-up as being either infectious or allergic. This is usually difficult, and at times impossible. In one of the case studies presented herein, the patient had severe spells of coughing and wheezing. At times she was febrile, with malaise, and raised purulent sputum. She responded slowly to antibiotics. At other times similar attacks of coughing and wheezing were accompanied by itching eyes, sneezing, and a watery nasal discharge. These spells responded well to epinephrine. In either instance, the patient's distress was due primarily to the asthma.

CLINICAL AIDS

Clinical aids in helping to distinguish the presence or absence of infection in a given attack are the following:

(1) Blood count. A high eosinophile count is often present in an infectious episode complicating asthma.

(2) Cervical adenopathy and purulent discharge are indicative of infection.

(3) Nasal mucous membrane. Careful examination may produce definite evidence of either allergy or infection.

(4) Nasal smear for predominance of pus cells or eosinophiles.

(5) Therapeutic response to epinephrine. Immediate and prolonged relief of symptoms certainly speaks for an allergic condition.

(6) A history of similar episodes recurring in the summer suggests a pollen sensitivity.

MANAGEMENT OF CHRONIC INFECTION

Once chronic bronchial infection is suspected, the following management is indicated: The patient should be made as comfortable as possible with symptomatic treatment. Hospitalization is advisable for the patient's comfort during the diagnostic procedures. It is usually necessary if steroid therapy is contemplated. Since infection is present which may be spread under the influence of steroids, or the manifestations of an acute flare-up of this infection may be concealed by the hormones, it is best to do a sputum culture and a sensitivity test, and give full doses of the indicated antibiotic.

Before carrying out bronchoscopy the possibility of an anaphylactic reaction to the contrast medium to be used must be considered. Reaction may be difficult to predict. They are so infrequent that informative statistics are not available. However, it is felt that reactions are more common in allergic patients. We feel that this risk can be calculated to a reasonable degree. A detailed history, in addition to noting any sensitivity to cocaine and similar local anesthetics, should include any previous intolerance to iodine compounds. A negative skin test with these preparations is altogether unreliable. A positive scratch test, however, must be viewed with alarm, even though it may be a false positive.

Preoperatively $1\frac{1}{2}$ grains of one of the barbiturates is utilized to allay apprehension and to provide the patient with antidote for such toxic reaction to the local anesthesia as may occur. During the endoscopic procedure, a test dose of pontocaine, and later of contrast medium, is applied to the pharynx. An interval of at least fifteen minutes is allowed to elapse before administering further amounts, during which time the patient is closely watched for signs of sensitivity. Adrenaline is sometimes given, for whatever protection the patient obtains, and to obtain maximum bronchial dilatation. There are no reports of antihistamines being combined with the contrast medium, as in intravenous pyelograms.⁴ One author has reported doing bronchograms without reactions, by administering ACTH to patients who previously had anaphylactic signs.

PRINCIPLES OF STUDY

The exact procedure of study in any specific case may vary, but the general principles may be described as follows: Bronchoscopy should precede bronchography in all cases, in order to eliminate from the differential diagnosis those endobronchial lesions which would otherwise mislead the physician and whose presence might be of serious consequence. Such entities are tuberculous ulcerations, bronchogenic carcinoma, bronchial adenoma, strictures and maldevelopment of the bronchial tree. In addition to the elimination of certain pathologic entities, there is a positive advantage to bronchoscopy in the opportunity to accomplish certain diagnostic and therapeutic procedures. In the first place, the appearance of the bronchial membrane in different parts of the pulmonary tree is helpful in localizing the extent of the lesion. Secondly, the opportunity to aspirate secretion from the lung to facilitate the study of the pulmonary segment of its origin, is helpful. It is essential to know whether a particular pulmonary lobe can produce five or fifty c.c. of secretion, whether there is an admixture of blood with it, and whether blood may be produced by forceful cough after such secretion has been aspirated. In addition, the opportunity to remove a considerable percentage of the retained secretion from the lung, by a cough stimulating procedure which will cause the patient to raise more and more throughout the remainder of the day, is helpful. When the patient comes to bronchography, his tracheobronchial tree is essentially free of secretion and then may be completely filled with contrast medium. Most important of all, secretion is obtained for laboratory study without contamination from the mouth. The routine examinations carried out are cultures with sensitivity studies, acid-fast smear and culture, fungus cultures, papanicolaou, and cell block studies.

BRONCHOGRAPHY

Bronchography may best be accomplished by utilizing the same anesthetic techniques which are employed for bronchoscopy. A soft rubber catheter is placed directly in the trachea with the guidance of a laryngeal mirror. Once the catheter is in place, a small amount of local anesthetic is injected via the catheter, and as soon as the inevitable cough has subsided the patient should be ready for bronchography. With the patient on the fluoroscopic table, the harmonious coöperation of roentgenologist and laryngologist becomes essential to the remainder of the examination. The radiologist watches the progress of the contrast medium throughout the tracheobronchial tree, makes sure that no area is overlooked, takes frequent spot films during the procedure, and observes the characteristic filling of the bronchi. The laryngologist, at this time, is injecting the contrast medium, moving the catheter to the ori-

fice of each bronchus and positioning the patient so that the lung will be filled satisfactorily in all segments. At the close of the instillation of contrast medium, the catheter is withdrawn and chest films, posterior-anterior, right and left obliques and lateral views, are taken. If this technique is carefully followed, in the average coöperative patient, good filling of all bronchial segments may be obtained at one examination. Complete examination of the entire lung is of particular importance, as the question of surgery in these pulmonary suppurations is ever present. For this reason it is imperative to demonstrate in detail the anatomic configuration of the whole bronchial tree. The areas of disease must be identified, and the absence of disease in other areas must be established. Minimal changes may be observed on bronchography that might not be considered significant without regard to the clinical course of the patient.

EXPERIENCE WITH 105 BRONCHOGRAMS

In the past six years 105 bronchograms have been made of allergic and non-allergic patients. In this time, only four reactions have occurred. Two of these were relatively mild skin rashes thought to be due to iodine. These were readily treated by antihistaminics, and cleared up in a few days without any significant morbidity. One bullous eruption of the hands and feet occurred in a patient with a negative allergic history who required eleven days hospitalization. One mild case of parotitis occurred in a patient who had had previous bouts of nonspecific parotitis. These reactions were all encountered in the group of patients which had been studied with lipiodol. One helpful prophylactic technique is the administration of magnesium sulfate at the close of the bronchogram, to reduce the opportunity for intestinal absorption of iodine from medium which has been coughed up and swallowed during the examination.

CASE REPORTS

The histories of four patients are given to illustrate the types of cases encountered:

(1) A twenty-eight-year-old girl had asthma since the age of nine. Other siblings were asthmatic. She had always been worse during the pollen season. She had felt unable to work for the past four years. During this time she has had spells of malaise and lassitude, and a chronic cough. Coughing spells were invariably accompanied by wheezing. Only in recent months has she begun to raise copious amounts of sputum. She was hospitalized and studied medically. It was felt that with this history no period of observation or trial of therapy for her asthma was necessary. Bronchograms revealed bronchiectasis at both bases.

(2) A twenty-year-old girl had asthma from the age of two. On many occasions asthma resulted from

exposure to animals or from eating certain foods. Until recently she controlled her asthma satisfactorily, without medical care, through a self-imposed avoidance regime and an epinephrine spray. She was always worse during the ragweed season, but was usually symptom-free during the early summer. In January, 1954, she was hospitalized elsewhere with bronchitis and severe asthma. Cortisone was finally resorted to in order to control the asthma. The dose was tapered off and finally stopped. Two weeks later she was again hospitalized with severe asthma, and again this was controlled with cortisone. She was first seen by one of us with intractable asthma after the cortisone dose was reduced. Hospitalization, a dust avoidance regime, and a rigid diet helped, but it was necessary to continue cortisone through the Spring. Ragweed vaccine was started. During six months of observation it was seen that some spells of asthma were accompanied by febrile episodes, with the production of purulent sputum, lasting one or two weeks, and requiring antibiotics. Other spells of asthma were accompanied by typical hayfever symptoms and were quickly relieved with epinephrine. Bronchoscopy demonstrated middle and lower lobe orifices of abnormally small size on the right. The remainder of the Tracheobronchial tree appeared to be normal. Bronchograms were made, revealing bronchiectasis at the right base.

(3) A twenty-nine-year-old female had asthma since early childhood. Two siblings have asthma. She was always worse in the summer. Dust and the smell of paint have always bothered her. Symptoms were very mild during school years, but became increasingly more severe during the last three years. During a period of observation extending from January through the following summer, she had daily coughing and wheezing. There were frequent flare-ups that could not be correlated with exposure to inhalant irritants, foods, or pollens. Occasional attacks responded quickly to epinephrine; at other times she was relieved only after a course of antibiotics. At the beginning of treatment during the Winter months, cortisone was given for about ten weeks before reasonable comfort could be produced. Bronchograms were made and revealed bronchiectasis at both bases.

(4) A twenty-two-year-old male had asthma since the age of four. He had a known sensitivity to various household inhalants. Prolonged exposure to dogs, feathers, dust and hay produced giant hives and asthma. He had pneumonia on six occasions, diagnosed by roentgenograms. Nasal polypi were removed on two occasions. While he was fairly comfortable on a self-imposed avoidance regime, he had a chronic cough and wheeze, together with almost constant malaise and difficulty maintaining his weight. Because of an episode of hemoptysis, bronchoscopy was performed. The right bronchial mem-

brane was red and friable, and profuse purulent discharge came from the right lower lobe. The remainder of the bronchial tree was normal in appearance. Bronchograms were made, and localized tubular bronchiectasis was found in two lower segments, one on the right and one on the left. He was first seen at this time as an allergy patient, and allergic studies were carried out. It was felt that this was obviously a surgical case, and a trial of medical therapy was not indicated. He was carried on a rigid regime for asthma and bronchiectasis,⁵ with some improvement, and subjected to surgery one month later.

MEDICAL OR SURGICAL TREATMENT

The question of surgical versus medical treatment often is a difficult one to decide in asthmatics. Certain cases obviously do not warrant surgical consideration, as when the bronchiectasis is too extensive, involving more segments than can be removed. Another type of case, that might be discovered as a result of mild hemoptysis, with no evidence of infection, probably does not warrant surgical intervention. Advanced bronchiectasis, localized to one or two segments, with infection, is the type preferably treated by surgery.

It may be impossible to determine which cases are so-called pseudo-bronchiectasis, and therefore reversible, without an intensive trial of medical treatment. Such treatment would necessarily include the routine procedures used in bronchiectasis, and should be just as intensively directed at the allergic factors. Neglect of either phase will almost certainly result in failure.

The treatment we have carried out for bronchiectasis included postural drainage, bronchodilators such as oral ephedrine, and an epinephrine or Isuprel nebulizer, potassium iodide, antibiotics systemically or by inhalation, aerosol detergents, and repeated bronchoscopic aspirations if indicated. Bronchodilators should preferably be used preparatory to postural drainage. We have not had a case requiring dilatation of a stenotic bronchus.

The allergic management includes a rigid dust and epidermal avoidance regime, a trial elimination diet, and dust and pollen vaccine when indicated; any additional disturbing factors discovered during observation must be contended with.

A long period of observation may not be necessary to evaluate such a case. If treatment is intensive, a favorable response is likely to be evident within a month. Such a case is deserving of persistent treatment even though the end result may still not be satisfactory, and surgery may be required. Even when the end result of medical management is good, various economic factors, such as the time and expense involved, may make surgery a preferred method of treatment.

SUMMARY AND CONCLUSIONS

Attention is called to the known asthmatic who develops bronchiectasis. This complication may be overlooked because the symptoms of asthma predominate. The presence of bronchial infection should be suspected when the pattern of disease in an old asthmatic changes for the worse; or when he becomes refractory to treatment that was previously successful. It is necessary to distinguish between bronchitis and bronchiectasis, since the latter is usually not reversible, and is often best treated surgically. Bronchoscopic and bronchographic studies are required to evaluate such patients. Successful treatment depends on specific allergic management, medical procedures aimed at keeping the patient free of bronchial infection, and surgery when indicated. Attention to all of these phases of treatment is essen-

tial. Otherwise the result is a patient with intractable asthma plus the unhappy prognosis that goes with progressive bronchiectasis.

BIBLIOGRAPHY

1. Overholt, R. H., Walker, V. H., Woods, F. M.: Hidden or Unsuspected Bronchiectasis in the Asthmatic Patient, *J. A. M. A.*, 150:438, Oct. 4, 1952.
2. Schmidt, H. L.: Bronchographic Studies of 555 Patients, *Ann. O. R. and L.*, 56:793, Sept., 1947.
3. Ramsay, B. H.: Bronchiectasis: Practical Consideration of Cure, Treatment, and Prognosis, *Diseases of the Chest*, 26:482, Oct., 1954.
4. Simon, S. W., et al.: Prevention of Reactions in Intravenous Urography, *Ohio State Med. J.*, 50:247, March, 1953.
5. Olsen, A. M., and Clagett, O. T.: The Treatment of Bronchiectasis, *The Medical Clinics of N. A.*, 38:1019, July, 1954.

OPHTHALMOSCOPIC AIDS IN DIAGNOSIS AND MANAGEMENT OF HYPERTENSION

RICHARD H. DENNIS, M. D., Waterville, Maine*

INTRODUCTION

Hypertension and its associated changes have always been of prime concern to anyone engaged in medicine. With increasing longevity of the general population, there has been a relative increase in the incidence of hypertension, and it is becoming more and more necessary to be able to evaluate and classify the hypertensive patient's status. Treatment has become more effective and varied, and it is often of extreme importance to be able to determine what course to pursue.

Ophthalmoscopic findings have been demonstrated to be of much value to the internist and to the general practitioner in diagnosing and evaluating a hypertensive patient. Recent work has improved the state of general understanding of the fundus changes. Many workers in the ophthalmological field have been attempting to clarify the clinical interpretation of vascular changes in the eye. The ophthalmoscopic changes have been demonstrated and systems for standard and simple classification of hypertensive severity have been proposed.

This paper is not designed to bring anything new into the literature. It is aimed at emphasizing and summarizing those changes which can be directly seen by the examining doctor whether he be an ophthalmologist, internist, or general practitioner. These signs in the fundus of the eye can be of equal help to all of us and are immediately available if only we have in mind what to see and how to interpret it.

The purpose of this paper then, is to bring to greater general attention those signs in the retinal

vascular tree which are of help in diagnosing the hypertensive state and those systems of classification which may help each doctor to evaluate the relative severity of his patient's condition.

To this end the recent literature on the subject has been investigated. There has been a great deal written in the ophthalmological literature, but the work by Dr. Scheie¹ in 1953 in the *Archives of Ophthalmology* most succinctly and clearly designates the important vascular signs and classifies them in a simple and clinically useful manner.

Much work has also been done by Friedenwald,² Wagener and his co-workers,^{3, 4} and others.

EARLY ARTERIOLAR CHANGES

The first concept which one must realize is that the majority of the retinal vessels are not arterial in nature, but are arteriolar. They are different anatomically and respond differently from arteries. The latter has a strong muscular coat, and a well-developed intimal lining. The central retinal artery possesses those characteristics up until it reaches the point where it perforates the sclera and begins to branch out in the retina. Here the intima quickly disappears and the muscular wall thins out appreciably. It is well agreed that beyond the first bifurcation in the retinal tree, the vessels have become arterioles.

Although the etiology of hypertension is still in debate, it is generally agreed that it is probably due to a spasm of the arteriolar bed in the peripheral vessels causing an increased resistance to blood flow. In the early stages the first changes are physiological and consist of narrowing and spasm of the vessels.

* From the Thayer Hospital, Waterville, Maine.

This may be only temporary, and if the hypertension is relieved or disappears, there may be no permanent changes.

If however, the hypertension persists, the narrowing and spasm of the vessel produces nutritional deficiencies in the vessel wall. The latter becomes more permeable, and some of the blood may escape in the form of the small "flame shaped" hemorrhages associated with this disease. Exudates likewise occur, due probably to the deficient nutrition to the retina itself. These can be the soft "cotton wool" exudates due to retinal degeneration, or can be so-called hard exudates due to actual deposition of degenerative products in the retina. All of these changes are thought to be caused by the narrowing and constriction of the vessel. A further change seen in the most extreme cases is edema of the optic head, thought to be due to local vascular congestion.

PROGRESSIVE CHANGES

As the disease progresses, more permanent changes occur in the vessels in the form of arteriolar sclerosis. This represents vessel wall damage due to the long continued pounding of the elevated pressure. Hyaline deposited at first beneath the endothelium gradually thickens and stiffens the entire wall of the arteriole. In so doing, it produces ophthalmoscopically visible changes. Initially the vessel wall is very nearly transparent and one sees only the blood column. As the arteriole becomes thicker walled, it becomes more visible by reflecting back more and more light. When the vessel wall becomes dense enough, it begins to press on the veins wherever it crosses them. This causes a narrowing of the blood column in the vein. As the sclerosis increases the vein seems to disappear as it goes under the arteriole. All of these changes represent the permanent results.

In order that we may evaluate the retinal arteriolar changes, it is possible to use the above changes as our sign posts, and to classify the stage of the hypertension.

It is here that Dr. Scheie gives us the most help. He has carefully and clearly separated those changes due simply to the vasoconstriction from those due to the alteration in character of the vessel wall — that is, arteriosclerosis. By comparing the two in any given eye, we can determine to a large extent both the intensity of the hypertension and its duration. As he points out, it is probably more valuable to the patient and to the doctor managing him to be able to determine the duration of the disease, and concomitantly the amount of permanent damage already done. This may be of extreme importance, especially if any surgical intervention is considered. If a patient has a very severe hypertension with little permanent damage, a surgical procedure might be of some help. If a large amount of sclerosis already exists, such a procedure would probably have little value.

CLASSIFICATION OF CHANGES

A classification which is of help divides the changes indicating the severity of the disease into four stages. It further divides the arteriolar sclerotic changes indicating the duration of the disease into four parts, and compares the two. These classifications have been proposed separately and by various men — Friedenwald,¹ Wagener,³ and others as well as Dr. Scheie.

The hypertensive changes are in four grades.

Grade I. Minimal narrowing of the arterioles. This will be difficult to ascertain in many cases unless we know beforehand that the patient is a known hypertensive.

Grade II. Narrowing plus irregular spasm of the arterioles. This is easily picked up when the eye grounds are routinely examined in the office.

Grade III. Narrowing and irregularity in calibre, plus the flame-shaped hemorrhages and exudate.

Grade IV. Narrowing, irregularity, hemorrhages, and exudate, plus edema of the nerve head; the latter being evidenced by indistinct margins, and perhaps elevation of the disc itself.

The arteriolar sclerosis changes are also graded in four parts arbitrarily to provide a classification similar to the vasoconstrictive changes. They are based on the visible changes in the wall of the arteriole, and on the changes in the vessels at the arteriovenous crossings.

Grade I. The first change which one is capable of recognizing is a beginning whiteness of the vessel wall. This of course would easily be missed unless one suspects or knows of the presence of the disease. It is associated with very early compression of the veins by the arteries at their crossings.

Grade II. More advanced changes than Grade I are termed Grade II.

Grade III. "Copper wire" appearance of an arteriole is due to the combined color of the vessel wall, and the column of blood shining through it. In this stage the wall has not become opaque enough completely to obscure the blood. Compression of the veins by the arterial wall at their crossings is more obvious.

Grade IV. When one sees the "silver wire" appearance, it is termed Grade IV. The color here is due to the fact that there is enough deposition of hyaline material so that the blood column is almost completely obscured, and the color is due to light reflected from the white wall. In this stage there is also marked compression of the veins to a point of complete disappearance at the crossing.

By using the two classifications just described one is able to evaluate with some degree of accuracy the status of the hypertension. The degree of severity or height of the pressure may be interpolated from the degree of narrowing, and the presence of retinal exudates or hemorrhages.

The amount of permanent damage can quite satisfactorily be judged by the degree of arteriolar sclerosis present. It is this information which is of course of most value to us. The severity of the tension can usually be ascertained by other methods. But the degree of permanent damage can be most easily and directly seen by observation of the retinal arteriolar tree.

CASE REPORTS

Two cases, recently seen, illustrate the prognostic usefulness of fundus examination in the hypertensive.

The first case (W. L.), was a pregnant woman referred for consultation from the obstetrical service because of signs of toxemia. Examination of her retina showed Grade II hypertensive changes as determined above. But she showed no sclerosis at all, or Grade 0, one might say. One could then say that, although this patient was extremely sick at the moment, she had not had much permanent change, and would show very residual damage if the condition were terminated. She delivered shortly thereafter, and her vessels returned to normal.

F. W., a 54-year-old white male came to the office complaining of intermittent loss of vision, especially in his right eye. Examination showed Grade III hypertensive vascular changes with spasm to the point where parts of the vessels were apparently completely occluded. He also showed hemorrhages but no exudate. The sclerotic change was Grade II with definite generalized increase in the reflex associated with arteriovenous compression. We could say in this case that he had had the disease for some length of time, and was having a sudden exacerbation. He was hospitalized and tided over the episode with

vasodilators under the care of an internist. His vasoconstrictive symptoms disappeared except for the hemorrhages which were still present when last seen. The sclerotic changes of course remained.

SUMMARY

In summary, this paper is simply to emphasize the usefulness of retinal examination to all doctors who have the care of hypertensive patients. It does not purport to add anything new to the literature on this subject, but it is hoped that the principles brought forth in other than an ophthalmological journal may be of more general use.

It is pointed out that the vascular tree in the retina is largely arteriolar in nature. As such, it mirrors arteriolar changes occurring elsewhere in the body in the hypertensive state.

A method of classifying these changes is presented. It allows us to evaluate separately those which represent the degree of hypertension, and those which show the permanent changes from long standing elevation of the blood pressure.

Two cases are presented illustrating the usefulness both in treatment and prognosis, by evaluation of the patient's status.

BIBLIOGRAPHY

1. Scheie: Evaluation of Ophthalmoscopic Changes of Hypertension and Arteriolar Sclerosis. *Archives of Ophthalmology*, Vol. 49, 1953.
2. Frudenwald, J. C.: Retinal and Choroidal Arteriosclerosis. *Modern Trends in Ophthalmology* by Ridley & Scrobsy, 77:82, 1940.
3. Wagener, H. P. et al.: Essential Hypertension. *American Journal of Medicine*, 209:257, 1945.

Eight-Day Bermuda-Nassau Cruise Planned Following A.M.A. Meeting

An outstanding eight-day cruise to Bermuda and Nassau has been arranged for physicians and their wives following the A.M.A. meeting at Atlantic City in June.

The party will sail from New York at 7 p. m., Friday, June 10, 1955, aboard the palatial Furness Line steamer *Ocean Monarch*. The ship docks early Sunday at historic St. George's, Bermuda, for church services and a tour of the city. A sightseeing trip, a visit to Castle Harbour Hotel for tea and a calypso concert are set for the afternoon. On Monday morning a tour of Hamilton, the island's capital, is scheduled prior to sailing at 1 p. m.

Tuesday is spent at sea with a variety of programs planned — or the day can be used to rest up for

Nassau — the next port of call. The party goes ashore at Nassau, capital of the Bahama Islands, early Wednesday. Beaches and cabanas of the British Colonial Hotel are available and a dinner dance will be held there that evening.

The ship leaves Nassau at midnight and the last two days of the tour are spent at sea — with the traditional gala party set for the last night aboard. The ship docks in New York at 9 a. m., Saturday, June 18.

All space is being held for the A.M.A. and reservations should be made immediately. For further information contact W. M. Moloney, Chicago, Burlington and Quincy Railroad, 105 West Adams St., Chicago.

ACHALASIA, REVIEW AND CASE REPORT

JOHN F. REYNOLDS, M. D., F. A. C. S.*

The syndrome of idiopathic dilatation of the esophagus without an anatomic stenosis, but with functional narrowing of the lowermost end of the esophagus has several names. Synonyms also to some degree, reflect the various theories as to the etiology of this condition which is still poorly understood. A disturbed neuromuscular coordination of the esophageal wall and the cardioesophageal junction results in this condition, and the prevailing theory is that there is an alteration of, or congenital absence of, the myenteric plexus of Auerbach. It has been well established that the cardiac sphincter is not a definite anatomical muscle but rather a continuity of esophageal and gastric muscularis. In the normal individual a pressure of five to seven millimeters of water from above will cause the sphincter to open but fifty millimeters of water are required from the gastric side to produce relaxation of the sphincter. Considerably greater pressures fail to bring about relaxation in the condition presently under discussion.¹ It has been shown that vagotomy in animals causes increased tone of the cardiac sphincter, and dilatation of the esophagus, whereas in human beings stimulation of the vagus nerve causes spasm at the cardia in some individuals and causes relaxation in others which suggests that the vagus nerve may carry both motor and inhibitory fibers to the cardia. It was shown years ago that the picture of cardiospasm in the vagotomized animal could be prevented by sympathectomy. Grimson noted no change in esophageal function after operation for hypertension with complete sympathetic denervation.⁸ Ochsner and DeBailey attempted to treat this condition with sympathectomy for a while but concluded that their results were unsatisfactory.⁵ It is also known that sympathetic spasm may result from intrinsic causes such as inflammation or ulceration, and from extrinsic stimuli from diseases elsewhere in the gastrointestinal tract. Hawthorne⁴ quotes Poppel as concluding that a disturbed peristalsis or even total motor paralysis may be present in this disease and that the entire esophagus may be involved in the functional derangement, rather than the lowermost end or cardiac end of the esophagus. The same authority also states that Rake found evidences of pathological changes in the myenteric plexus at the lower end of the esophagus. Changes in the myenteric plexus also are noted in megacolon, hypertrophic pyloric stenosis, post-cholecystectomy syndrome and chronic relapsing pancreatitis. It is felt by some that all of these conditions are indefinitely and vaguely related,

and indeed, cases of concomitant megacolon and achalasia have been recorded suggesting a possible common and congenital origin.

DEVELOPING SIGNS AND SYMPTOMS

The primary changes in this condition are usually functional narrowing of the lowermost end of the esophagus followed by gradual lengthening and dilatation of the proximal esophagus, especially to the right, for there the expanding esophagus meets the least resistance in the posterior mediastinum. Various gross appearances probably represent degrees in the course of the single disease and various types have been described by several authors prominent in this field. The fusiform type is probably the earliest, and may progress to the widened, rather typical flask shape while it is felt that a sigmoidal configuration with lengthening and redundancy is indicative of longstanding disease process. The muscularis layer of the esophagus is thickened above the narrowed segment which in some cases is stated as being thinner than normal, although in the case under discussion the circular muscle layer adjacent to the esophagus seemed definitely thickened. Presenting symptoms of pulmonary involvement such as cough, expectoration, fever, and asthmatic seizures are seen in some patients and result from aspiration, or from pressure of the esophagus filled with food.

The cardinal symptoms of this disease are epigastric pain, dysphagia, and regurgitation. Warm and liquid foods are better tolerated than cold or solid ones. In many cases, as in ours, excessive amounts of water or liquids are frequently necessary in an attempt to literally wash the food down into the stomach. In longstanding cases severe nutritional deficiencies with weight loss and anemia are not uncommon. This disease is more common among males and, contrary to what one would expect, is not seen any more commonly in persons with nervous temperament than in those considered to have a more stolid and complacent turn of mind. In the largest series of cases the symptoms began in the third to fourth decade of life. Dysphagia may vary greatly in intensity but is present as a predominant symptom in all cases, usually present at each meal, and regurgitation in the early cases frequently occurs immediately after swallowing. In the later stages of the disease when the esophagus becomes more dilated ejection may be delayed, and it is in these cases with nocturnal regurgitation where pulmonary symptoms of acute or chronic nature may be presenting symptoms. A very high percentage of these patients pre-

* Senior Surgical Staff, Thayer Hospital, Waterville, Maine.

sent evidence of weight loss and a large majority of them have some degree, though variable, of substernal discomfort. Other symptoms which have been noted by various authorities as presenting symptoms were nervousness, shortness of breath, eructation. Hematemesis has also been reported.

TREATMENT

It is agreed that treatment of this condition should be by conservative means, where possible, and probably a large majority of cases of this disease entity which are unaccompanied by dilatation of the esophagus to marked degree, and stasis, will respond satisfactorily to repeated dilatation. Bockus² states that following dilatation the patient should remain on a bland diet for many months. It is estimated that between ten and fifteen percent of these patients will require surgical intervention because of poor response to conservative means of therapy with the previously mentioned therapeutic schedule and instrumentation, and in a certain few cases operation may be necessary when the diagnosis is not entirely clear and one cannot rule out carcinoma in later adult life. Maingot feels that operation is indicated in childhood, since young patients frequently respond poorly to dilatation whereas the operative treatment is strikingly successful.

OPERATIVE TREATMENT

Many surgical means of therapy have been devised and attempted including esophageal plication, sympathectomy, vagotomy, phrenicomyotomy, only to be discarded and these procedures are now infrequently used. Wangensteen recommends an esophagogastrostomy which includes resection of the lowermost terminal esophagus and upper two-thirds of the stomach with anastomosis between the remaining esophagus and lower third of the stomach. This seems to be a rather radical operative procedure for correction of this condition, but it is apparently done in consideration of the acidity factor in preventing postoperative esophagitis. Various type of cardioplasties with transverse repairs either include the mucosal surface according to Sweet's type of procedure or extramucosal repair as advocated by Girard. In 1913 Heller reported extramucosal cardiomyotomy which had first been outlined by Gottstein in 1901. The original Heller procedure consisted of anterior and posterior incisions through all layers of the lower esophagus and cardia the mucosa being excepted and allowed to bulge out through the incisions. The use of a single anterior incision, as is now most frequently done, was advocated by Maingot and Garin. Probably the three most often used means of operation in present day light of knowledge, are; (1) the operation originally described by Wendell and Myer consisting essentially of the longitudinal

incision through the constricted area sutured transversely thus widening the cardia, (2) esophagogastrostomy as practiced by Ochsner and Wangensteen, (3) the Heller operation itself. This latter procedure has been chiefly used in Great Britain, until recent years, during which time it has achieved more common usage in this country. Hawthorne and Davis now seem completely converted to the Heller type of procedure after comparing their results between esophagocardiomyotomy and esophagogastrostomy, where they felt that the morbidity could be greatly reduced, along with the number of unsatisfactory results. The Heller procedure is probably the most physiological since no abnormal opening is made into the mucosa of the stomach and esophagus, the operation being relatively simple and requiring no suturing nor anastomoses.

CASE REPORT

Our present patient, falling into the category of this disease, was first seen at Thayer Hospital in October of 1952 at the age of thirteen by Doctor L. W. Pratt, with the history of a number of bouts of difficulty in swallowing. He had had repeated difficulty over the last year and a half prior to his admission to the hospital in 1952, and was admitted at that time, for esophagoscopy. Barium studies had been made at that time, and revealed no definite abnormalities and his difficulty seemed to mainly concern his food failing to completely leave the esophagus. His general health in the past had been good. He had had tonsillectomy and adnoidectomy. There was no history of asthma or hay fever, and no evidence of tuberculosis or blood dyscrasia. On barium swallow at that time there was a slight irregularity found in the aortic region of the esophagus. The physical examination was essentially within normal limits and the patient's weight at that time was not recorded. Endoscopy was done and revealed only some thickening in the region of the aortic arch which also seemed to be somewhat roughened as if "from an external esophageal pressure." The diagnosis on discharge from the hospital at this visit was chronic esophagitis, etiology undetermined. The patient was next seen in November of 1953 at the request of the family physician, and with the history that his difficulties in swallowing had grown increasingly worse to the point where at the time of his second admission, he was having trouble in deglutition of his own saliva. His physical examination was again essentially unchanged except that he had lost some weight despite the fact that he had gained one year of age and size. Repeat esophagoscopy revealed evidence of chronic esophagitis and definite cardiospasm. It was impossible to pass larger than a #14 dilator without difficulty. X-rays at that time showed moderate widening of the esophagus. There was a moderate

amount of debris in the esophagus which was aspirated. Following dilatation the patient was discharged on a restricted soft diet and medication in an attempt to relieve the spasm present in the lowermost portion of the esophagus. On admission in November of 1953, surgical correction of the achalasia was considered because of esophagoscopy and X-ray findings. The patient was referred to the author by Doctor Pratt and arrangements were made for his admission to the hospital for surgical correction of his defect because of increasing symptoms and since it was felt that repeated dilatation was not feasible in a fourteen-year-old boy. There was no evidence of neurological or other disease, and since surgical treatment had been decided upon, it was considered that the least formidable type of surgical procedure should be carried out first, namely the esophagocardiomyotomy. His physical examination was again negative, his weight 115 pounds. The day following his admission to the hospital for the surgical procedure, esophagoscopy was again carried out, and retained fluid and undigested food were aspirated. No ulcerations or evidence of neoplasm were found. The esophagus was, however, definitely dilated in the lower third, and the area of constriction persisted at the cardia.

SURGICAL PROCEDURE

At operation the left thorax was entered in the eighth interspace without rib resection. The inferior pulmonary ligament was divided and ligated, and the mediastinal pleura was incised, exposing the esophagus which was elevated from its bed over a distance of about three inches proximalward and down to the diaphragm. The diaphragm was then opened from the tendinous portion to the esophageal hiatus. Excellent exposure was thus obtained to the lower portion of the esophagus and upper portion of the stomach, the left lobe of the liver being mobilized and spleen retracted. The lower one centimeter to one and one-half centimeters of the esophagus was constricted to a diameter of about 1.5 cm. This constriction did not seem to extend either proximally or distalward. Above the area of constriction the esophagus was thick walled and of an enlarged diameter. An anterior incision was made through all layers of the wall of the esophagus except the mucosa over the lower three inches of the esophagus and extending at least two to two and one-half inches down onto the fundus of the stomach. The mucosae of both the esophagus and stomach were seen to bulge well into the incision and the mucosa was nowhere opened. The rent in the diaphragm was then repaired with interrupted 20 silk sutures leaving a satisfactorily repaired hiatus. A catheter was placed in the ninth interspace posteriorly and the chest wall was closed in layers with interrupted cotton sutures. The drainage tube was connected to a water-seal bottle, and

prior to closure of chest the lung had been well expanded. Anesthesia was of the endotracheal type.

Postoperatively the lung showed complete expansion on the second postoperative day and the catheter was removed. Wangensteen suction through the Levine tube in the stomach was carried on for twenty-four hours postoperatively, until adequate peristalsis had returned and the patient was then started on a bland diet which he seemed to tolerate well. He was out of bed on the first postoperative day and convalescence from this point onward was uneventful. All food was well retained, and there was no recurrence of the epigastric fullness and distress, and no postoperative vomiting. Prior to this patient's discharge from the hospital on his tenth postoperative day, a barium swallow was reported as follows: "There was no evidence of retained fluid or food particles in the esophagus, the reexamination shows some relaxation of the extreme stenosis found at the diaphragmatic hiatus on previous examination. With the patient in the Trendelenburg position there was very little regurgitation of the stomach content on straining."

The patient was seen one month following his operative procedure at which time he had had absolutely no complaints, was able to eat all types of food without difficulty in swallowing. His chest showed no limitation of expansion, the posture was good, and his weight had increased to 125 pounds. He was next seen four months later, at which time he had again continued to gain weight, had no complaints referable to his gastro-intestinal system, and appeared to be in an excellent state of nutrition. His weight was then 140 pounds. At his last visit, eleven months postoperatively, the patient's general condition was excellent, he had no complaints and was able to carry on his full obligations without disability or symptoms.

SUMMARY

We have endeavored to partially review the literature on the subject of achalasia, and have presented a fourteen-year-old boy with severe symptoms of this clinical entity, treated by the modified Heller procedure. To date, one year following his operative procedure, he has had complete relief of obstructive symptoms, and no symptoms of esophagitis. X-ray studies of the patient's cardia were satisfactory postoperatively. The operation is believed to be more physiological in approach to the problem and results in an expansible and adequate passage for the food bolus, yet preserving function so that reflex esophagitis did not complicate the postoperative course.

BIBLIOGRAPHY

1. Nash, J.: Surgical Physiology, C. C. Thomas Co., 1946.
2. Bockus, H. L.: Gastroenterology, Saunders, 1943.

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MALINGERING OF DEAFNESS

LORING W. PRATT, M. D., Waterville, Maine*

Willful misrepresentation of physical status is the characteristic of the malingerer, and is commonly found in all walks of life. Most malingerers feign illness to accomplish their ends, which commonly are the avoidance of distasteful duties or the fraudulent collection of compensation which justly comes only to those who are actually incapacitated. In the malingering of hearing, we encounter the group which falsely claims hearing impairment; but, in addition, also encounter an entirely different problem, that of the person with impaired function who pretends to be unimpaired. In this case, he usually seeks to obtain employment, and its compensation, reserved for those with normal hearing. This is commonly a temptation to veteran aircraft pilots who do not wish to lose their flying status and associated pay as a result of impaired hearing.

Problems which involve psychological deafness are extremely complicated and raise a series of considerations entirely aside from the purpose of this paper. We will consider malingering to concern only those who wilfully endeavor to mislead the examiner, whereas the psychologically deaf are presumed to be a group in which this artifice is not resorted to with the awareness of the patient.

HEARING PROBLEMS IN INDUSTRY

A new industrial situation is arising throughout the Country. Hearing impairment, due to acoustic trauma associated with employment, is now a compensable injury in many states. The importance of this development in the compensation courts emphasizes the necessity of exposing malingerers of hearing, because they constitute a real menace to this entire compensation problem. Those claiming impaired hearing must be evaluated as to the validity of their deafness to eliminate those who make such claims falsely. Preemployment examination of hearing will prove to be the greatest protection in this program, as pre-existing defects of hearing will be brought to light before exposure to industrial noise has occurred. It is of prime importance, however, that preemployment tests be conducted in such a way that individuals with hearing defects cannot successfully slide through the screen of preemployment testing and then claim subsequently that their hearing loss arose as a result of their exposure to industrial noise. Inaccurate testing would provide the unscrupulous individual with audiograms to prove his point, that his deafness is actually work connected.

TYPES OF MALINGERERS

It is easy to see, as before stated, that there are

two types of malingerers. The positive malingerer feigns good hearing when actually his hearing is impaired. The negative malingerer feigns impaired hearing when actually he has no such impairment. It is, in general, not difficult to expose such individuals and demonstrate that their hearing is misrepresented in the tests as recorded on the audiogram.

It is, of course, easy to claim any one or number of combinations of hearing defects. Thus, the individual may profess to suffer from either bilateral or unilateral defects which are alleged to be either total or partial. Each one of these defects must be studied in a different manner. It is usually not possible to amass enough information at one time to complete the diagnosis of a malingerer but repeated testing will unmask most attempts at deception.

The personality of the malingerer is worth consideration. He is the same sort of an individual who would pick a pocket or embezzle funds from his employer. He is apt to be nervous about the testing procedure, and this nervousness frequently increases as the tests are repeated and he wonders about his ability to produce consistent results. He may be furtive, and often gives the impression that he is thinking about something instead of, or in addition to, the test at hand. When the coöperation of the tested individual varies from the usual norm of such performance, especial care should be taken to eliminate the possibility that he may be attempting to render a misleading result of the test.

If there is suspicion that an individual is attempting to misrepresent his hearing threshold, care should be taken to prevent him from realizing that the examiner is suspicious of him. He should be misled to believe that the test is just as it should be and that everything is in order. No evidence of suspicion should be demonstrated until incontrovertible evidence has been accumulated which completes exposure of his deception. By producing this atmosphere of acceptance of the individual's story, the physician sets the stage for him to make one or more blunders, which will inevitably lead to his undoing.

CAREFUL HISTORY AND GENERAL OBSERVATION ESSENTIAL

There is one part of the study of hearing impairment which should never be neglected. This is the careful history and physical examination which accompanies any otological procedure. The malingerer may be able to misdirect the physician if he has been carefully schooled, but it is equally possible that he may slip up and reveal some factors which are relevant to the situation. While taking the history the physician has an excellent opportunity to size up his

* From the Thayer Hospital, Waterville, Maine.

patient. In addition, great care must be taken to determine the exact type of deafness, and to decide if it is appropriate to the alleged injury. For example, a man who has a conductive lesion and claims that his deafness originated from the ambient noise in a boiler factory, is to be viewed with suspicion, as is the man with perceptive deafness who claims injury secondary to middle ear infection contracted in the performance of his usual work. The personal history of the patient, history of exposure to acoustic trauma and the functional tests of hearing must all point to the same type of lesion.

In making repeated tests, careful watch should be kept for inconsistencies and any irregularity, however minor, should be cautiously investigated.

PREEMPLOYMENT TESTS

The preemployment test is the best defense the employer has against such dishonesty, as it establishes all preexisting defects before employment begins, and it measures the extent of each such defect. There is one great danger. The clever individual with known hearing defect may be able to produce a normal test and thus slide by the screening with a normal result. If he then appears at some later time with a genuine hearing defect which was present at the time of the first test but passed unnoticed, he has proof of the existence of acquired deafness secondary to employment. This danger makes it imperative that such screening tests be performed with the greatest of care and that the tests be carried out in such a way that this sort of misrepresentation cannot occur, else the organization builds a case against itself with its own testing procedures. Every person tested in preemployment examinations should be subjected to some sort of malingering testing.

The preemployment test is largely done with audiometry. Certain rules should be followed in performing this test.

1. The patient should be unable to see the controls of the audiometer while the test is in progress.
2. Certain points in the audiogram should be checked for inconsistencies.
3. The use of the "off" control on the audiometer should be utilized to mislead the subject and test his ability and/or willingness to respond only to the auditory stimulation.
4. Every test should be conducted with a certain amount of suspicion and rechecked for accuracy.

METHODS OF EXPOSURE

There are several ways in which the malingerer can be exposed, and those will be discussed at some length. It must be pointed out, however, that only some overt act of the individual will allow him to be trapped. Many of the tests mentioned below will expose him and may lead to such an action, but that action is essential to complete exposure. In addition, it must be remembered that many of these individuals

have had experience with the tests and are well acquainted with both the type of testing and the appropriate and inappropriate results. Thus, a certain amount of the testing must consist of a battery of tests which will, by repetition, confuse the individual and cause him to confess to the attempt he is making.

Hearing tests of a suspected malingerer should be made only in the presence of a third party, who understands the testing procedure and who can be utilized as a witness if the subject makes some response which would be inappropriate in a deaf person.

Bilateral severe deafness is a type which can be most successfully malingered, because all depends upon the ability of the examiner to obtain some overt response from the subject which will be a direct admission of his ability to hear. If the subject can maintain his poise through an adequate group of tests, he certainly can elude detection. The methods of exposing such a patient are as follows:

1. Psychological trickery: In this type of exposure the patient is misled to believe that something is true and when he acts upon this belief he is exposed. For example, the classic trick is for the examiner to drop a silver dollar behind the patient at the close of the examination. If he immediately turns, picks it up, and passes it to the physician, he is exposed. None but an extremely naive malingerer could be exposed by this procedure. The trickery must suit the situation and something appropriate usually can be developed by a resourceful otologist.

2. Reading test: When a normal individual is given material to read, and a masking tone is gradually increased in his ear, his voice will gradually increase in intensity so that he may hear what he is saying over the level of the masking tone. If a truly deaf person is given such reading to do, a masking tone does not affect the intensity of his reading voice. If one who claims to suffer from bilateral deafness is given such a reading test, and his voice intensity increases with the increasing level of the masking tone, he is established as having hearing.

3. Speech feedback: This is a new technique by which reading material is given to the subject. He reads it while wearing a head set through which delicate electronic devices return his speech to his ears a few hundredths of a second later than he would ordinarily hear it. This abnormal feedback causes him to stutter. Of course, if he were truly deaf, this sort of apparatus would have no effect at all on his ability to read without stuttering.

4. Physiologic testing: These tests are often utilized in determining the ability of tiny children to hear sound, before the age of the patient permits accurate testing. They are easily applied to suspected malingerers of total deafness and although they provide the physician with useful information

about the patient, these tests by themselves do not produce adequate legal evidence of malingering.

A. Cochleopalpebral reflex: If a loud noise is suddenly produced behind the unsuspecting patient, he will blink, reflexly. No such response is found in the deaf. A logical utilization of the cochleopalpebral reflex has been made in the electronically controlled "eye-blink" test of Glorig. By recording the motion of the eyelid with delicate recording devices, and by presenting click stimuli of varying intensity to the ear, a measure of hearing threshold is made possible in such a way as to derive something of an audiogram without the necessity of the subject's coöperation.

B. Cochleapupillary reflex: A sudden loud noise produced behind the unsuspecting patient produces an immediate pupillary constriction followed by pupillary dilatation. This test, as in the previous example, is not admissible as evidence in court, but it often provides the physician a lead as to the validity of the claim of total deafness.

5. Psychogalvanic testing: It has been shown by a number of authors, that it is possible to test hearing by means of the measurement of changes in the electrical skin resistance of the skin of the hand or arm. The subject is caused to develop a conditioned reflex and then responds reflexly to stimuli when presented. This is often used to test the hearing of young children who are unable to coöperate with audiometry. The "lie-detector" sort of test provides us with a good deal of information, but evidence from it is inadmissible as evidence in court.

The would-be malingerer who has unwisely chosen unilateral severe deafness is an easy subject to expose by careful testing.

1. Repetition test: In this technique, the subject is fitted to a head set from which connections are so arranged that speech directed into a microphone may be shifted from ear to ear without his awareness of the act. Then he is told a story which has been formulated so that certain details are heard by his good ear and certain other details are heard in only the supposed deaf ear. He is then asked to repeat the story going into as much detail as possible. He need repeat only one detail spoken into the deaf ear to expose himself as a malingerer. This test has had a high level of accuracy in testing situations.

2. Stenger Test: This test relies upon the fact that normal hearing is dependent upon the quantity of the masking tone present at the time of the test. A simple test may be done with two 512 tuning forks. One fork should be given a standard stimulation and the distance from the good ear at which it can be heard should be recorded. Then this test should be repeated while a similarly stimulated fork is held at one-fourth the distance from the patient's head, in the alleged deaf ear. If the fork is heard at the same

point on this occasion, the patient is deaf; but if it is necessary to move the fork closer to his head than was necessary without the masking tone, he is not deaf.

A modification of this test may be performed by slipping a rubber tube over the stem of the tuning fork. The end of this tube is then held at the external auditory meatus of the suspected ear. If this masking tone produces change in the distance the testing fork must be held from the head, the subject is not deaf.

SPECIAL AUDIOMETER TESTS

Partial deafness either bilateral or unilateral is best exposed by audiometry. The audiometer is the most useful single instrument in uncovering misrepresentations of hearing. It is difficult, if not impossible, for the ordinary individual to duplicate other than threshold intensity for tones on repeated audiograms. This plays into the hands of the examiner because inconsistencies appearing in repeated audiograms taken at intervals expose the individual. It must be remembered, however, that there are normal anatomical and physiological situations which cause alterations in the audiogram, and these variations must be evaluated in the light of other findings. If it is possible to eliminate these variables in the production of hearing impairment, it is perfectly practical to diagnose such other inconsistencies as truly representative of malingering.

CONCLUSIONS

In hearing problems, there are two types of malingerers, those who claim good hearing and those who claim impaired hearing, when actually the reverse is true.

Malingerers of hearing can be accurately tested and exposed if certain definite procedures are followed. However, some overt response or admission of guilt must be obtained before the evidence is conclusive.

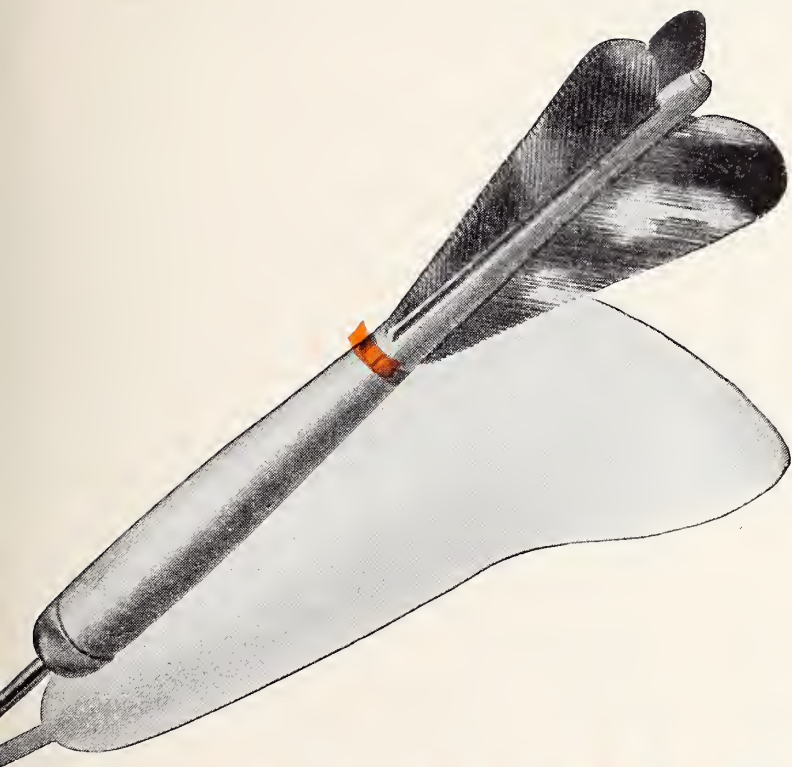
Preemployment hearing tests should be performed by all industries which engage workers in labor in high intensity ambient noise, and these tests should be performed in such a way that any attempt to misrepresent the hearing at this examination will uniformly meet with failure.

BIBLIOGRAPHY

- Bordley, J. E., Hardy, W. G., and Richter, G. P.: Audiometry with the use of Galvanic Skin Resistance Response: A Preliminary Report. Johns Hopkins Hosp. Bull., 82:569.
- Lee, B. S.: Artificial Stutter. Journ. Speech and Hear. Dis., 16:53-55, 1951.
- Lee, B. S.: Effects of Delayed Speech Feedback. Journ. Acous. Soc. of Amer., 22:824-826, 1950.
- Glorig, A.: Malingering. Ann. Otol. Rhinol. and Laryn., 63:802, 1954.

The image features a series of concentric circles in dark grey and black, creating a tunnel-like effect. The circles are centered on the right side of the frame. The text 'ACH' is written in a bold, orange, sans-serif font with a black outline, positioned on the right side of the image, partially overlapping the circles.

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ORGANIC GASTRO-INTESTINAL DISEASE SIMULATING DEFICIENCY STATE IN INFANTS

EDMUND N. ERVIN, M. D., and IRVING I. GOODOF, M. D.*

INTRODUCTION

In young infants the failure to gain weight and progress satisfactorily can often be attributed to improper dietary management and inadequate intake, less frequently to faulty absorption of foodstuffs due to aberrations of the intestinal enzyme systems. Two cases of young infants are presented here with the clinical appearance and manifestations of a deficiency state which were due to neither of these reasons but to organic disease of the intestinal tract. It is felt the lesions presented here are sufficiently unusual to merit presentation.

CASE REPORTS

Case No. 1. Baby D. C., 4-month-old female admitted to the Thayer Hospital for study and treatment of malnutrition, cause undetermined. She was born January 10, 1954, weighing 8 pounds, 1 $\frac{3}{4}$ ounces. Pregnancy and delivery were normal. She left the hospital on the fifth day, after an uneventful neonatal period, weighing 7 pounds, 8 ounces.

She was not seen again until nine weeks after delivery. She was very pale and inactive. The mother stated that she didn't eat well. She took only an ounce or two, fell asleep, then awoke crying. There was no history of blood loss. Stools were somewhat hard but of good color. No history of vomiting or diarrhea. She was admitted to the hospital weighing 8 pounds, 5 ounces, and appeared malnourished. The abdomen was distended and liver and spleen were palpable. Peristalsis was described as hyperactive. It was felt that the heart was enlarged to the left.

X-ray of the chest did not confirm the cardiac enlargement. An EKG was within normal limits. The hemoglobin concentration was 7.0 gms.; red blood count 2.5 million; white blood count 20,900 with an essentially normal differential cell count. Bone marrow revealed erythropoietic hyperplasia. The baby was Type O, Rh positive. Stool specimens were not remarkable except for a strongly positive guaiac reaction. Throat culture revealed moderate growth of beta streptococci. Stool culture was negative for pathogens. G-I series showed no abnormality.

The baby was fed a lactic acid milk formula with aqueous vitamin and iron preparations. She received several small transfusions. She was given penicillin for 4 days after which time she remained afebrile. Her hemoglobin concentration rose to 12.5 gms.; red blood count 4.0 million; white blood count 31,400. After a period of 2 weeks' hospitalization she had gained 9 ounces.

At the time of discharge she was not well. It was felt that this might represent a celiac syndrome or an intestinal anomaly producing such a picture. The source of the intestinal bleeding remained undiscovered but this was felt to be the cause of the anemia.

She was readmitted to the Thayer Hospital six weeks later. At this time she had an upper respiratory infection and an elevation of temperature to 106°. She had received two transfusions in the interim. There had been no improvement in her general condition. She had become increasingly difficult to feed and the mother stated that she had been "very colicky." Her stools were alternating loose, then constipated, with only an occasional tarry stool.

At this time she appeared emaciated and dehydrated. She weighed only 8 pounds. On examination the findings of an acute upper respiratory infection were present. The abdomen was markedly distended, doughy, and intestinal patterns were visible. She was in cardiac failure at this time. All therapeutic attempts were without effect and she died four days after admission.

Postmortem examination of this baby revealed all of the significant findings to be limited to the gastro-intestinal tract. Beginning at the origin of the jejunum, at the ligament of Treitz, the mesentery showed general, diffuse thickening and bluish-gray discoloration. The intestinal wall itself was somewhat thickened and showed distinct involvement by a neoplastic process beginning approximately at the origin of the ileum. From this point on, the intestinal wall averaged 3 to 5 mm. in thickness. It and the mucosa showed the same bluish-gray discoloration as was present in the mesentery and, in many areas, the mucosa itself was hemorrhagic and showed erosion with obvious bleeding points. There were large geographic areas of ulceration throughout the entire extent of the ileum, up to and including the ileo-cecal valve. The cecum itself, and the entire colon, showed no recognizable evidence of involvement by this process. Microscopic examination of these areas revealed the mucosa and wall of the intestine to be replaced by solid masses of endothelial cells forming small, capillary-like channels. The tumor grew in irregular nodules and masses identical with those so commonly seen in hemangiomas of the skin. The mucosal glands had been separated by masses of this type of neoplasm. The wall itself was penetrated and the mesentery diffusely involved in this process. The diagnosis and obvious cause of the nutritional difficulty and intestinal bleeding is "Hemangioendothelioma of ileum with extension to the mesentery."

* From the Thayer Hospital, Waterville, Maine.

Case No. 2. Baby B. P., one-month-old male was first admitted to the Thayer Hospital for loose, watery stools of several days duration. He was born March 8, 1954, weighing 6 pounds, 3½ ounces. He left the hospital on the fourth day weighing 6 pounds.

While at home, he had been extremely fussy and passed a great amount of gas rectally. Anti-spasmodics and several changes of formula were without effect. At no time had there been any vomiting. Several days prior to admission, he began to have loose, watery stools.

On examination, he showed evidence of dehydration. He weighed 6 pounds, ½ ounce. There were no positive findings except on abdominal examination which revealed moderate distention and visible intestinal patterns. There was no demonstrable tenderness. Auscultation revealed increased peristalsis.

Laboratory work was not remarkable. Stool examinations were negative. Stool culture yielded *Escherichia Communis*. The dehydration was corrected with intravenous fluids. He received Neomycin with Kaopectate with good effect. A barium swallow was followed through the duodenum with no abnormality noted. Dilated intestinal coils were visible on this examination.

After two weeks' hospitalization, he was discharged weighing 6 pounds, 8½ ounces. He had improved on a modified celiac regime. He was not distended and his abdomen was quiet. His slow weight gain in the absence of demonstrable disease remained unexplained.

READMISSION

He was readmitted to the Thayer Hospital on August 6, 1954, at the age of 5 months, with signs of acute intestinal obstruction of 2 days duration. Since his last admission, his progress had been slow. He ate well, but had periods of extreme fussiness, at which times he became distended. The mother felt that this was constipation which she relieved with enemas. His abdomen had recently become much more distended and this was not relieved by enemas. His appetite had remained good, and at no time was there any vomiting.

He weighed 10 pounds, 4 ounces. He was malnourished, his thin frame and scanty tissue in marked contrast to the enormous abdominal distention. The abdomen was doughy but no masses or tenderness were palpable. Auscultation revealed occasional high-pitched peristaltic sounds.

A flat plate of the abdomen showed dilated intestinal coils. The barium appeared to end in an obstruction in the region of the splenic flexure. The barium and cleansing enemas produced much gas and fecal material. In the morning his abdomen was flat and quiet.

Feedings were resumed and his subsequent course was uneventful. He was discharged with a diagnosis

of partial intestinal obstruction, etiology unknown.

On September 10, 1954, at the age of 6 months, he was readmitted to the Thayer Hospital with a story in all respects similar to the one of his previous admission. There had been intermittent abdominal distention, occasionally relieved by small enemas. There was no vomiting associated with the marked abdominal distention. The mother stated that the stools alternated between constipation and loose movements.

At this time, he weighed only 10 pounds, 6 ounces. He looked almost emaciated with a pale, wan facies. His abdomen seemed all the more distended in contrast to his malnourished appearance. However, no new findings were noted on examination.

Except for a mild secondary anemia, the laboratory findings were not remarkable. A barium enema was interpreted as showing distention of the colon in the vicinity of the splenic flexure. It was the feeling of the Staff that this infant should be prepared for exploratory laparotomy, which was done 3 days later.

At operation, the ileum showed dilatation, most marked in the terminal portion, with a localized dilatation approximately 25 cm. from the ileocecal valve. This portion of the intestine was resected. Examination showed a fusiform area 10 cm. in length which was dilated to 6 cm. in diameter. The proximal portion of the specimen measured 6 cm. in circumference as compared with 3 cm. in the distal portion, beyond the dilatation. Opening the dilated area showed normal wall. The mucosa presented the usual pattern except for an area 5 cm. in diameter on the contramesenteric aspect, where the surface was elevated, irregular and granular, possibly suggesting ectopic gastric mucosa. Microscopic examination confirmed this impression. The diagnosis was "Meckel's diverticulum containing ectopic gastric mucosa."

DISCUSSION

The above cases of malnutrition, suggesting the picture of intestinal deficiency, are presented because of their similarity to the celiac syndrome. They serve to indicate that some instances of failure to gain weight and progress normally may be due to organic disease which does not permit absorption of necessary nutriment. It is important to investigate thoroughly all infants who fail to gain or who have signs of "indigestion," rather than to assume that they represent formula difficulties or inability to digest certain elements of their formulas.

SUMMARY

Two cases of organic gastrointestinal disease in infants are presented showing the similarity to celiac syndrome. The need for thorough investigation of such infants is emphasized.

The Journal of the Maine Medical Association

THOMAS A. FOSTER, M. D., Portland, Editor

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A.M.A. House of Delegates

The House of Delegates of the American Medical Association, during the Eighth Clinical Meeting, November 29-December 2, 1954, at Miami, approved a resolution introduced by the delegates from Pennsylvania which will, we believe, gain sympathetic support from the general membership. The resolution directed that the A.M.A. Board of Trustees, "consider the creation of an organization in geriatrics within the present structure of the American Medical Association." The resolution further sets forth the purposes of the organization in four paragraphs which we will not quote in full but which embrace assistance to State Committees; liaison between State and County Committees; publication of valuable information to the American public and "to perform such other duties as will improve and advance the medical care rendered to people of the older age group."

Increasing interest and concern for the care of the

older age group has for some time engaged the minds of practicing physicians. It is an important subject. And it seems appropriate that the A.M.A. should take official action.

It is likewise appropriate that our representatives in Congress should study the matter. And we read with interest a dispatch from Washington the other day which reports action in the Senate. Indeed, Senator Charles E. Potter of Michigan, introduced a measure in the Senate to create a Federal Commission to study the problems of the aged and aging. He proposes along with twenty other senators that a ten member commission be appointed to study and to recommend action on the problems of the aged and those who are heading into that bracket. Here again is an opportunity for our organized medical associations to confer with government representatives and take a forward step in solving the problem.

Surgical Meeting in Providence

In early March, the 3rd through the 5th, the American College of Surgeons will stage a Sectional Meeting in Providence. The announcement contains the following statement — "Practical surgical problems will be discussed by a group of distinguished surgeon-teachers at this meeting, which is open to all medical representatives."

A careful scrutiny of the published program will assure the reader that the announcement has not indulged in any overstatement. It is a splendid program with an unusually wide selection of subjects and a talented group of speakers from medical school faculties and renowned clinics. Surely one will find

here an exceptional chance for postgraduate education.

Providence is near enough for our members to attend the meetings easily and at small expense. The short time spent away from the office should bring valuable returns in fresh points of view and in demonstrations of new and accepted procedures. The information acquired should, it seems to us, allow our surgeons to deliver increased benefits to their patients. We believe that the practitioners in our State possess such an attitude and will avail themselves of the opportunity.

The JOURNAL is pleased to announce that Dr.

Lloyd Brown, President of the Maine Chapter of the American College of Surgeons, will preside over one of the afternoon sessions featuring a Symposium on Pediatric Surgery and a Panel Discussion on Acute

Renal Failure. At the banquet Thursday evening, Dr. Paul Hawley, Director, American College of Surgeons, will speak on, "The College; an Institution Rather Than a Society."

To Hear Or Not To Hear

At this time of year a good many practitioners spend quite a lot of time attending annual meetings; annual meetings of Hospital Staffs and annual meetings of County Medical Societies. These gatherings offer an opportunity to participate in the fellowship of the profession and to learn from committee reports and the officers reports the results and achievements of the past year. They are important meetings not only because of the pleasant interchange with colleagues but also because of the information acquired from the reports. As a matter of fact the annual reports take first place in value of importance.

The question arising in our mind is this; how much of the reports do the members hear? Not all of those attending are able to find seats in the front

rows. Many interested and faithful members must take seats in the back of the room. They are, we believe, none the less anxious to know what has been going on during the year and what is planned for the future. Failure to hear every word of the speaker is disappointing and moreover creates occasional misunderstandings which may lead the listener to form inaccurate conclusions. We approve of the cultured voice and the gentle manner in the quiet office and at the bedside. Perhaps it is the fashion to use the bedside voice at general gatherings. We hope not. We gather from remarks of our associates that they would like to relax, like to be free from straining for every word, like to have a clear, distinct voice carry all of the message to them.

Necrologies

The JOURNAL is distinguished this month with the publication of a brief record of the achievements of a Maine born physician. Dr. Frederick T. Hill of Waterville, a student, pupil and close friend of Dr. Harris P. Mosher's graciously consented to prepare the essay. To those of us who knew Dr. Mosher, Dr. Hill brings to mind many acts of the doctor's kindness, and to those who did not know him a picture of a brilliant career of a native son.

Also in this issue of the JOURNAL is an obituary of one of our members who was born on the island of

Thasos in Greece and who, after coming to this Country, studied medicine and established a practice in Biddeford where he served the people of that community with unstinting devotion for thirty years. We thank Andre Xaphes for the unusually inspiring record of the life of his father who was a disciple from the homeland of Hippocrates.

We believe that a record of the medical careers of our members after their labors are done should be published in the JOURNAL and thus be made a part of the permanent files of the Association.

Executive Secretary's Bulletin

The first bulletin about legislative matters has just gone out. It calls attention to the two proposals of funds for hospital aid programs.

Mention is made of the amendments proposed to the podiatry law and a new licensing law for physical therapy.

REPORT ON HOUSE OF DELEGATES MEETING

American Medical Association

Eighth Clinical Meeting

November 29 - December 2, 1954

Miami, Florida

MARTYN A. VICKERS, M. D., Bangor, Maine*

This summary covers only a few of the more important subjects dealt with by the House and is not a detailed report on all actions taken.

Osteopathy, medical ethics, internships, hospital accreditation, the doctor draft law and malpractice insurance problems were among the major subjects of discussion and action by the House of Delegates at the American Medical Association's Eighth Clinical Meeting held November 29-December 2, 1954, in Miami.

OSTEOPATHY

The House concurred in the following supplementary report of the Board of Trustees on the osteopathic situation:

"Contingent on the receipt of the report from the Committee to Study the Relations Between Osteopathy and Medicine of its 'on campus' observations of osteopathic schools, the House of Delegates in June, 1954, agreed to hold in abeyance any action on this important subject until this meeting.

The Committee, after meetings and extensive negotiations with the American Osteopathic Association, has now made final arrangements for visiting five of the six schools of osteopathy, and these plans have been approved by the Board of Trustees.

It is the recommendation of the Board, therefore, that consideration of this matter be held in abeyance by the House of Delegates until the June, 1955, meeting, at which time the Committee expects to have a complete report of its findings concerning the nature, scope and quality of education in schools of osteopathy."

MEDICAL ETHICS

In action involving medical ethics, the House rejected a Kansas resolution which would have removed Section 8 of Chapter 1 from the Principles of Medical Ethics. The Reference Committee on Miscellaneous Business, in recommending disapproval of the resolution, said that "the American Medical Association would fail to assume a vital responsibility if no provision is included in the Principles of Medical Ethics regarding the problem of ownership of drug stores and dispensing of drugs by physicians. . . . It is possible that some phases of this principle are susceptible of amendment or change, but certainly the entire principle should not be discarded."

INTERNSHIPS

Following are a few excerpts from the report of the Ad Hoc Committee on Internships:

"It is our opinion that graduates of foreign medical schools should be considered for intern appointment in approved hospitals only when there is satisfactory evidence that:

1. Language difficulties will not seriously impair the program.

2. The same educational standards are applied to graduates of foreign schools as to graduates of approved American medical colleges.

3. The appropriate state licensing board approves.

The Committee believes that the present standards detailing only the number of annual admissions, autopsy rate, number of beds and assignment of an intern to from 15 to 25 beds, are without significant meaning unless and until every local situation is reviewed 'on the grounds' and with full opportunity for discussion between the representative of the accrediting body and representatives of the hospital's governing board and its medical staff.

Had the 'two-thirds rule' remained a requirement and been rigidly applied to the two consecutive intern years, 1952-53 in combination with 1953-54 it would have removed 448 hospitals, cancelled 4,205 internships to which 784 students were matched in those years and reduced the number of internships available to 6,766."

HOSPITAL ACCREDITATION

The House resolved that the Secretary of the American Medical Association be directed to request that the Joint Commission on the Accreditation of Hospitals supply a copy of the letter of notification regarding the results of the survey of each hospital to the Hospital Administrator, to the Chief of the Professional Staff and to the Chairman of the Governing Board of the hospital.

THE DOCTOR DRAFT LAW

The Reference Committee on Medical Military Affairs considered several reports and resolutions involving the doctor draft law, and then proposed the following policy statement which was adopted by the House of Delegates:

"(A) That on the basis of current information

* Delegate from the Maine Medical Association.

the House of Delegates commend and express itself as being in complete accord with the Board of Trustees and its Council on National Defense that the 'Doctor Draft Law' should not be extended after June 30, 1955, and that the House of Delegates further express its confidence in the ability of the Board of Trustees and its Council on National Defense to properly handle the complex and involved problem.

"(B) That the Board of Trustees and its Council on National Defense continue to study the problem of providing the best possible medical service for members of the armed forces and that they make recommendations to the Department of Defense at the earliest possible time for a more permanent solution to the problem, giving special attention to the further development of a career medical corps with adequate compensation therefor."

MALPRACTICE INSURANCE

Two resolutions and a Board of Trustees supplementary report, all dealing with the problems and difficulties in obtaining satisfactory professional liability insurance, were considered together by the Reference Committee on Insurance and Medical Service. The House of Delegates accepted the reference committee report which said: "Inasmuch as the Board of Trustees has reported that there is in progress a study on the subject, we feel that we can well await the recommendations that the Board is planning to make at the next session. Due to the apparent emergency aspect of the problem, the Board of Trustees is urged to report to the membership as soon as possible, through its component societies, on the progress of this urgent study."

Other highlights of the session were addresses by Dr. Walter Martin; Mr. Seaborn P. Collins, National Commander of the American Legion; Mrs. Oveta Culp Hobby, Secretary of Health, Education and Welfare; and Mr. Edwin J. Faulkner, President of

the Woodman Accident and Life Company of Lincoln, Nebraska.

Mr. Collins told the House that he is willing to appoint qualified Legion representatives on a committee to take part in joint Legion-A. M. A. study of veterans' hospitalization. Later during the meeting the Board of Trustees announced the appointment of a three-man committee to meet with the Legion on the issue of veterans' medical care. The members of the A. M. A. committee are Dr. Elmer Hess, Dr. David Allman and Dr. Louis Orr. This, by the way, is the first time the American Legion has demonstrated a real willingness to discuss the problem.

Named as the 1954 General Practitioner of the Year was Dr. Karl B. Pace of Greenville, N. C., whose selection by a special committee of the Board of Trustees was announced at the opening session of the House of Delegates on Monday by Dr. Dwight H. Murray of Napa, California, Board Chairman. Dr. Pace received the medal and citation, presented annually for community service by a family doctor, from Dr. Walter B. Martin of Norfolk, Virginia, President of the American Medical Association, immediately after the announcement.

Registration toward the end of the third day of the Clinical Meeting included 3,167 physicians, 3,441 guests, including residents, interns, nurses and others, and approximately 900 exhibitors and exhibitors' guests, for a grand total of more than 7,500. Final total registration at the 1953 Clinical Meeting in St. Louis was 7,716.

As the A. M. A. Clinical Meeting came to a close on Thursday, December 2, a health fair for the public opened in Miami's Bayfront Auditorium under the auspices of the Dade County Medical Society. The fair, open through Sunday with more than 80 exhibits featured, marks the first time that such an event has been held in connection with the A. M. A. Clinical Meeting.

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COUNTY SOCIETY NOTES

Franklin

January 10, 1955

At a meeting of the Franklin County Medical Society on Monday, January 10, at the Exchange Hotel in Farmington, the following officers were elected for 1955:

President, Paul A. Fichtner, M. D., Rangeley.

Vice President, D. Wade Marsters, M. D., Strong.

Secretary-Treasurer, Paul E. Floyd, M. D., Farmington.

Delegate to the Maine Medical Association, Philip B. Chase, M. D., Farmington. Alternate, Paul E. Floyd, M. D.

Board of Censors: George L. Pratt, M. D., Farmington (one year); Harry Brinkman, M. D., Farmington (two years); James W. Reed, M. D., Farmington (three years).

A Clinical Pathological Conference was held following the business meeting and dinner. The case was discussed by Wallace H. Duffy, M. D., of Farmington, and the autopsy findings reported by Robert D. Wakefield, M. D., of Lewiston.

PAUL E. FLOYD, M. D.,
Secretary.

Hancock

January 12, 1955

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, on Wednesday, January 12. There were fifteen members and three guests present. The meeting was called to order by the president, Dwight Cameron, M. D., of Northeast Harbor. Karl V. Larson, M. D., of East Machias, District Councilor, reported on several matters relating to the Council of the M. M. A.

The speaker of the evening was Hugh Smith, M. D., of the Radiology Department of the Eastern Maine General Hospital in Bangor. Dr. Smith gave a very interesting and instructive talk on Radiation Therapy, which was well illustrated with kodachrome slides of cases in his practice.

ARTHUR M. JOOST, JR., M. D.,
Secretary.

Penobscot

January 18, 1955

Daniel Miller, M. D., Assistant Clinical Professor of Otolaryngology at Tufts College Medical School, was the speaker at a meeting of the Penobscot County Medical Society on Tuesday, January 18, at the Bangor House, Bangor. Dr. Miller's subject was Ear, Nose and Throat Cancer and the General Practitioner.

York

January 12, 1955

The annual meeting of the York County Medical Society was held at the Kennebunk Inn, Kennebunk, on Wednesday, January 12. There were twenty-four members and six guests present.

A social hour was held at 1.00 P. M., and was followed by a delicious steak dinner.

Samuel Marshall, M. D., of The Lahey Clinic, was the guest speaker and gave a very interesting talk on Peptic Ulcer and Cancer of the Stomach, which was illustrated with lantern slides.

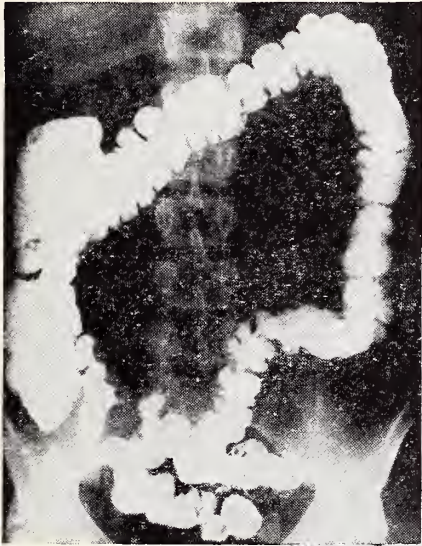
At the business meeting the following officers were elected for the coming year:

President, Robert D. Vachon, M. D., Sanford.

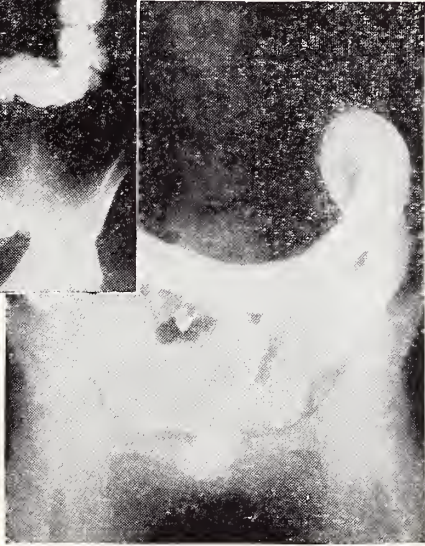
Vice President, Marion A. K. Moulton, M. D., West Newfield.

Secretary-Treasurer, Charles W. Kinghorn, M. D., Kittery.

Continued on page 56



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Rectal distention is a vital factor in initiating the normal defecation reflex, and sufficient bulk is thus of obvious importance in restoring this reflex. Metamucil provides this bulk in the form of a smooth, nonirritating, soft, hydrophilic colloid which gently distends the rectum and initiates the desire to evacuate. Metamucil demands extra fluid, imparting even greater smoothage to the intestinal contents.

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Metamucil is supplied in containers of 4, 8 and 16 ounces. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association. G. D. Searle & Co., Research in the Service of Medicine.



County Society News—Continued from page 54

Delegates to the Maine Medical Association: James H. Macdonald, M. D., Kennebunk; Gerald R. Smith, M. D., Ogunquit; Roger J. P. Robert, M. D., Saco. Alternates: Carl E. Richards, M. D., Sanford; Alexander W. Magocsi, M. D., York; Melvin Bacon, M. D., Sanford.

Board of Censors: Leandre R. Charest, M. D., Stephen A. Cobb, M. D., H. Danforth Ross, M. D.

Committee on Resolutions: Marcel P. Houle, M. D., J. Robert Downing, M. D., Robert F. Ficker, M. D.

Publicity, Frank W. Barden, M. D.

CHARLES W. KINGHORN, M. D.,
Secretary.

New Members Cumberland

Donald P. Cole, M. D., 31 Deering Street, Portland.

Laban W. Leiter, M. D., 175 Vaughan Street, Portland.

Doris Sidwell-Thompson, M. D., Pownal.

Richard B. Stephenson, M. D., 131 State Street, Portland.

Penobscot

Hadley Parrot, M. D., 74 Somerset Street, Bangor.

Deceased Cumberland

Harvey Howard, M. D., Freeport, February 2, 1955.

NOTICES

Postgraduate Course on Diseases of the Chest Philadelphia, Pa., March 7-11, 1955

The Council on Postgraduate Medical Education of the American College of Chest Physicians, in cooperation with the respective state chapter of the College as well as the staffs and faculties of the local hospitals and medical schools of Philadelphia, will sponsor the Eighth Annual Postgraduate Course on Diseases of the Chest, to be held at the Bellevue-Stratford Hotel, Philadelphia, Pennsylvania, March 7-11, 1955.

Our postgraduate courses endeavor to bring physicians up to date on recent advancements in the diagnosis and treatment of heart and lung disease. Tuition is \$75.

Further information may be secured by writing to the Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

International Academy of Proctology to Meet in New York March 23-26, 1955

New research in proctology and related fields, as well as the implications of these developments for the general practice of medicine, will be reported at the 7th annual meeting of the International Academy of Proctology, to be held from March 23 through 26 in New York City.

Panel discussions on cancer of the lower intestine and on ulcerative colitis will highlight the Academy's scientific sessions at the Hotel Plaza in New York City on March 23, 25, and 26, and at the Jersey City Medical Center on March 24.

In accordance with its established practice, the Academy extends an invitation to all physicians to attend its sessions, and the American Academy of General Practice will grant credits to its members attending the meeting.

Aero Medical Association Annual Meeting Washington, D. C., March 21-23, 1955

The Twenty-Sixth Annual Meeting of the Aero Medical Association will be held at the Hotel Statler, Washington, D. C., March 21-23, 1955.

Information relative to the program may be obtained by writing to the General Chairman, Robert J. Benford, M. D., P. O. Box 1607, Washington 13, D. C.

Mental Health Clinic Schedule

The Division of Mental Health offers psychiatric clinic service to children and adults in the following cities:

Portland — Health and Welfare Department, 178 Middle Street. Every Tuesday.

Lewiston — Out-Patient Department, Central Maine General Hospital. Every Monday.

Augusta — Bureau of Health, Division of Mental Health. By Appointment.

Waterville — Mansfield Clinic, Thayer Hospital, 3rd Wednesday.

Bangor — Out-Patient Department, Eastern Maine General Hospital. 1st Wednesday afternoon.

Valentine School, Union Street. 1st Thursday.

A traveling clinic visits the following towns and cities at irregular intervals: Caribou, Houlton, Lincoln, Machias, Rockland and Rumford. The Portland Clinic is open daily with a staff of 1 psychiatric social worker and 1 psychologist. The psychiatrist is in attendance on Tuesdays. The other clinics are staffed by a psychiatrist and a psychologist.

Referrals may be made by private physicians, parents, families, school agencies, school superintendents, Department of Education, all divisions within the Department of Health and Welfare. Application blanks may be obtained from the main office of the Division of Mental Health — State House, Augusta.

Patients are seen by appointment only. Each child must be accompanied by a parent or guardian. Applications should be sent to the Director, Division of Mental Health, Department of Health and Welfare, State House, Augusta.

Bibliography—Continued from page 42

3. Womack, Brintnail and Ehrenraft: J. A. M. A., 145:283, 1951.
4. Hawthorne, H., and David, H. C.: Surgical Clinics of North America, 31:1669, 1951.
5. Ochsner and DeBakey: Archives of Surgery, 41:1146, 1940.
6. Maingot, R.: Postgraduate Medical Journal, 20:278, 1944.
7. Sweet, R. H.: Thoracic Surgery, Saunders, 1950.
8. Grimson et al.: Surgery, 20:94, 1946.

NECROLOGIES



Harris Peyton Mosher, M. D., D. Sc., L.L.D.

Dr. Harris Peyton Mosher, one of Maine's most illustrious sons and this Country's most prominent oto-laryngologist, died on November 4th, 1954.

Dr. Mosher was born October 21, 1867, in Woodfords, now a part of Portland, the son of Andrew and Julia Harris (Woodford) Mosher. His boyhood was spent in Woodfords where he attended Deering High School. After his father, a civil engineer and an inventor, who was responsible for the development of the great United Shoe Machinery Corporation, moved his family to Boston, the young man spent a year in the Massachusetts Normal Art School. Despite his interest in Art, which he maintained throughout his life, he decided upon Medicine as his career and after four years at Harvard University, entered the Medical School, graduating in 1896. This was followed by a surgical internship at the Massachusetts General Hospital and one in obstetrics at the Boston Lying-In Hospital. The Spanish American War then afforded him his first experience in military medicine, serving as a contract surgeon in the U. S. Army.

After four years of general practice in Boston he decided upon Oto-laryngology as the field most suited to his talents and took post-graduate work in Germany, largely in Berlin and Halle. Returning home he renewed his ties with the Massachusetts General Hospital as Laryngologist and became associated with the Massachusetts Eye and Ear Infirmary, an association which he maintained, in spirit, even after retirement, until the day of his death.

From his first year of practice, when he became an assistant in Anatomy, he was continuously associated with Harvard Medical School until he retired in 1939, the last fourteen years as Professor of Oto-laryngology.

This position was combined with that of Chief of Oto-laryngology at the Massachusetts Eye and Ear Infirmary, thus giving full play to Dr. Mosher's talents and enabling him to develop residency and post-graduate programs of exceptional merit, such as to attract oto-laryngologists from all over the World.

In 1915, Dr. Mosher joined the first Harvard Unit and served in the British Army in France at General Hospital, No. 22. With this Country's entry into the War he was commissioned as Major and assigned to the Surgeon General's office, where shortly he became Chief of Oto-laryngology with the rank of Colonel. As such he was responsible for the organization and conduct of departments of Oto-laryngology in the Army hospitals. This was a revealing

experience for him and one which had tremendous effects upon the specialty. Certain inadequacies in training and qualifications, in many cases, were all too apparent. The resulting development of modern oto-laryngology, with high standards of teaching, largely may be attributed to his dynamic leadership. One outstanding example is the American Board of Oto-laryngology of which Dr. Mosher was the first, and for 22 years, the only President.

Dr. Mosher was President of both the American Laryngological Association and the American Laryngological, Rhinological and Otological Society in 1920; of the American Broncho-Esophagological Society in 1921; of the American Academy of Ophthalmology and Oto-laryngology in 1929; of the American Otological Society in 1938. In addition he served as Chairman of the Section of Oto-laryngology of the American Medical Association. He also was a Fellow of the American College of Surgeons, and a Corresponding Fellow of the Royal Medical Society of London, the British Laryngological Society and the Medical Societies of Paris and of Vienna. He was the Guest of Honor of each of our four National Societies and was the first American to deliver the Semon lecture before the Laryngological Section of the Royal British Medical Society, receiving on that occasion the Semon Medal from the University of London.

In 1934, he received the deRoaldes gold medal award and in 1947 the Newcomb Award of the American Laryngological Association. In 1937, he was presented with the Gold Medal of the American Academy of Ophthalmology and Oto-laryngology.

He was the recipient of honorary degrees of D. Sc., from the University of Pennsylvania, Colby College, and Jefferson Medical School, and of L. L. D. from Wayne University. When given the degree from Colby he told me he especially appreciated that recognition from his native State.

He was greatly pleased when invited to participate in the Centennial Program of the Maine Medical Association. His address at the evening program was one of the highlights of the meeting. This was a typical Mosher presentation, philosophical in nature and full of wise observations. The writer happens to know that this was as carefully thought out and prepared as was his Semon lecture in London. Always he was the perfectionist.

Dr. Mosher was endowed with the inquiring mind of the true scientist and was indefatigable in his pursuit of knowledge. He was constantly engaged in research throughout his

entire medical career. His work on the esophagus is especially outstanding. He published some 89 scientific papers.

Dr. Mosher was married March 22, 1913, to Mrs. Helen Augusta Rothwell, who survives him. Never were two people more devoted to each other and their married life can only be described as idyllic.

His clubs were the Boston Art Club and the Harvard Club of Boston. While not a member of any denomination he attended both the Congregational and Episcopal Churches.

His early training in Art enabled him to incorporate in his teaching certain unique features of inestimable value to

his students, whereby they made drawings and models from original anatomical and surgical specimens. It also provided him with hobbies with which he occupied his spare moments. He worked in all media.

He once stated that his greatest professional satisfaction was his vicarious fatherhood of some five hundred men in his post-graduate course in the hospital. It is doubtful if any of us can begin to measure the extent of his influence in Otolaryngology. More than any other he has been the leader, the teacher, the crusader.

FREDERICK T. HILL, M. D.



Chrysaphes J. Xaphes, M. D.

1892 - 1954

Chrysaphes J. Xaphes was born in Limenaria on the Island of Thasos in Greece on February 21, 1892, the son of John and Maria Xaphes. He received his elementary education in the local schools of Thasos. At an early age he went to sea with his father who owned a transport vessel and carried on trade between Greece and the mainland of Turkey. His extensive contact with the Turks, who at that time occupied the Island of Thasos as part of the Ottoman Empire, enabled him to learn the Turkish language which was one of the five languages which he spoke, read and wrote. His family possessed extensive vineyards and were engaged in the sheepherding business. They had a winter home by the sea and a summer home in the mountains where he spent his summers with the shepherds.

From an early age he determined to become a doctor and with this goal in mind he left his family and native land forever. Arriving in the United States during the latter part of 1912, with only \$40.00 in his pocket and unable to speak the English language except for a few words, he was met by two cousins who were the only people he knew in this country. He settled for a short time in Connecticut. One of his cousins died and he then moved with his surviving cousin to Winooski, Vermont. He went to night school to perfect his English and worked hard at a variety of jobs.

In September of 1914, he entered Winooski High School where he completed the required four years in three. While there he annually won a scholarship for high academic work.

In September, 1917, he enrolled at the University of Vermont where he took his pre-medical training. During this pre-medical course he was inducted into the United States Army and served for two years. Upon being discharged he was given his citizenship in this country. In 1919 he entered the University of Vermont Medical School and received his medical degree in 1923. While in medical school he obtained financial aid from a Fund for which he was grateful throughout his lifetime. During his summer vacations he was employed as a weaver in the American Woolen Mills in Winooski. Following his graduation from medical school he served his internship at the Mary Fletcher Hospital in Burlington, Vermont. He then went to Biddeford, Maine, and began the practice of medicine in November, 1924. His office was at 107 Main Street until 1949 when he moved to 154 Graham Street. During World War II, he devoted much time to Civilian Defense work.

He was a staff member of the Webber and Notre Dame Hospitals, was a member of the American Medical Association, the Maine Medical Association and the York County Medical Society. He was a member of the St. James Greek Orthodox Church in Biddeford.

Doctor Xaphes died suddenly of coronary thrombosis at his home on Thursday afternoon, December 9, 1954. He leaves his widow, Marguerite M. (Beauregard) Xaphes and two sons, John Frederick and Philip Andre.

TUBERCULOSIS ABSTRACTS*

Issued by the National Tuberculosis Association

Incidence of Tuberculosis Among Homeless Men

By Herbert W. Jones, Jr., M. D., Jean Roberts, and John Brantner, *Journal of the American Medical Association*, July 31, 1954.

This study, an 11 months' intensive case-finding survey, is based on the client population of the Salvation Army Men's Social Service Center in Minneapolis. The center provides a rehabilitation program for homeless men. The majority of these men come on self-referral from "Skid Row," although, at any given time, about 10 per cent of the clients have been referred for rehabilitation as physically handicapped; 10 per cent as parolees and probationers, and about 10 per cent as provisional discharges from the state hospital system. About 70 per cent of the client population regards the abusive use of alcohol as its major problem.

For five years preceding the start of this study, the Center depended on the periodic visits of the Christmas Seal Mobile X-ray Unit of the Hennepin County Tuberculosis Association to check the health status in regard to tuberculosis. During this period, no noticeable difference in incidence between the population here and the general population in Minneapolis was noted. However, it was felt that, since a third of the client population stayed less than one month, a routine weekly program of taking chest roentgenograms would give more complete coverage of the population. This was instituted in October, 1952, through the coöperation of the Minneapolis Public Health Division and the Hennepin County Tuberculosis Association. The results that follow are based on a survey of 405 consecutive chest roentgenograms taken routinely from October, 1952, through August, 1953. During that period all men who stayed at the Center at least one week were examined by means of a chest roentgenogram. Of the 405 who were screened, five per cent were under 30 years of age; 17 per cent between 31 and 40 years old; 33 per cent between 41 and 50; 35 per cent between 51 and 60, and 10 per cent 61 or older. The transient nature of the group is apparent from the fact that 30 per cent were residents of the city of Minneapolis; 20 per cent were residents of the state of Minnesota, and 50 per cent were considered "federal transients," since they had no established residence in any state. The results of this survey are shown in the table.

RESULTS OF SURVEYS AMONG SELECTED POPULATION GROUPS IN MINNEAPOLIS

Groups	Number Screened	New Cases of Tuberculosis Found		New Cases per Thousand Persons Screened	
		Total Active	Total Active	Total Active	Total Active
Men's Social Service Center, October, 1952, to August, 1953	405	14	9	34.6	22.2
Hennepin County TB Association Mobile Unit, 1952	53,995	149	20	2.8	0.4
Minneapolis industries	23,081	53	3	2.3	0.1

* From Vol. XXVIII, February, 1955, No. 2.

Institutions	6,655	52	6	7.8	0.9
School students and personnel	14,449	7	3	0.5	0.2
Other general groups	9,810	37	8	3.7	0.8
Minneapolis work-house survey, 1952	2,238	18	4	8.0	1.8

In considering these results one should note that, in the portion of the population that was surveyed, the rate of active new cases per 1,000 is 22.2, compared with the similar rate for the Hennepin County Tuberculosis Association Mobile Unit survey of the general population of 0.4 per 1,000 in 1952. The rate in the population group surveyed is 55½ times as great as the general rate in Minneapolis for that year. The difference in the incidence of tuberculosis between these two groups is highly significant.

It is recognized that the rate of new cases found is related to the intensity of the search for them. However, this factor probably does not account for most of the difference in rates, especially since the rate of new active cases in the sample of homeless men is 13.4 times as great as the rate found in the Minneapolis Men's Workhouse population, the most nearly comparable survey both as to population composition and to intensity of search. This high rate of incidence of tuberculosis occurs in a transient, very mobile population group. It occurs in a population group that in general lives under conditions that are likely to foster infection of others in the same group. The men in this group sleep generally in dormitories, whether in the cheap hotels or in the various rehabilitation centers throughout the country. They are generally in fatigued physical condition, and their standards of cleanliness and personal hygiene tend, through economic necessity, to be low.

This rate occurs in a population group that is very likely to take temporary jobs as food handlers — cooks, cooks' helpers, dishwashers, etc. — situations in which the possibility of transmission of the disease to the general population is a factor. This rate occurs in a population group that is not limited to Minneapolis and that by its very nature can be presumed to exist in every large urban center in the United States. There is no reason to suppose that the rate of incidence found in Minneapolis is very much different from the rate that would be found by similar surveys in other cities. Indeed, it is very logical to assume that, in a survey that covered not only the younger groups such as those applying for admission to the rehabilitation centers but the entire "Skid Row" population, including the older, more permanent residents, the rate would be higher. This survey reveals an important aspect of the public health problem of tuberculosis. The homeless men quite probably constitute a primary source of reinfection for tuberculosis in the United States. Any public health program that has as its aim the eradication of tuberculosis in our population should take particular account of this segment of the population. The study points to the need for intensified case-finding surveys of the populations of our "Skid Rows" and of our rehabilitation centers.

(The printing of Tuberculosis Abstracts is made possible by the coöperation of your local tuberculosis and health association.)



The Pine Tree Society for Crippled Children and Adults, Inc.

The people of Maine should be proud of the services offered to the crippled children in the state through the facilities of the Pine Tree Society for Crippled Children and Adults, Inc., 18 Casco Street, Portland, Maine. This Society maintains the Hyde Memorial Rehabilitation Hospital in Bath and the Pine Tree Camp in Rome.

An affiliate of the National Society for Crippled Children and Adults, Inc., the Pine Tree Society is a non-profit state-wide agency established in 1936 to provide for the many needs of the physically handicapped, whether from disease, congenital origin or accident, and as a charitable institution the Society is dependent upon the public for its support. Annually it conducts an Easter Seal Campaign for funds the month before Easter.

Direct services to the handicapped are offered at the Hyde Memorial Rehabilitation Hospital in Bath. Here in the twenty-one room mansion presented to the Society by the daughters of the late John H. Hyde and converted into a hospital, is carried out the fully rounded program of physical, occupational and speech therapy, education and recreation.

The spacious halls and rooms which are decorated and furnished in a manner to give the feeling of a beautiful home rather than an institution are ideal for the crippled children in wheel chairs, on stretchers and in specially constructed vehicles. An elevator connecting all floors makes possible the free use of this equipment. The Library, now used as a livingroom, is enjoyed by friends and families on visiting days.

The patients have their own recreation program. Games, books, toys, motion pictures, events indoors, on the spacious lawns and terraces, or in the garden and greenhouses, help the children to have as much fun as possible. Flowers grow as well and bloom as brightly for the small hands of the crippled children as for those of more expert gardeners.

The school program provides regular instruction for the children from kindergarten through the grades, and special teachers for the older children, enabling all to catch up and keep up with others in their age group.

Of great importance at the hospital are the greenhouses which make possible the all-winter supply of vegetables that daily go to trays and tables, meeting dietary requirements in the excellent food which is served from a sparkling kitchen

to those in the tray-and-bed stage, and in the dining room to children in wheel chairs and on stretchers rolled in to the tables, and to others with crutches and braces in regular chairs pulled in and shoved back with more or less assistance.

Here a staff of fifty-five, including therapists, nurses and attendants is caring for fifty-five children and four adults, the present number of cases. Physical Therapists and their assistants carry out treatments, graduated exercises and special training as prescribed by the physician. And a fifty-foot heated swimming pool supplements this program for therapeutic exercises and hydro-therapy.

The Occupational Therapy program is planned to help the child to develop coordination of hand activities, to strengthen weak and spastic hands, to teach the child to help himself, and feed himself, as many children with cerebral palsy must be taught to feed themselves and often this has to be done with the aid of special feeding devices.

The Speech Therapy program is planned to fit individual needs. The aims are: to help the child attain the best possible speech, to guide the child in the use of speech and to develop a more pleasing personality.

An around the clock staff of nurses attends to the medical and nursing care of the patients. Youngsters who develop a cold, or condition requiring a degree of isolation and special treatment, occupy single rooms reserved for this purpose.

Every two weeks members of the Medical Advisory Committee consult with the therapists and the Medical Staff members of the Bath Memorial Hospital, who also give their time and services to the Society. Medical and technical staffs are duly qualified to carry out the specialized type of treatment indicated for these children.

While more than six hundred patients have been cared for since the opening of the Hyde Memorial Home late in 1947, statistics show that there are upwards of five thousand handicapped children in Maine — indicating the amount of work yet to be done.

In the summer the Pine Tree Society operates Pine Tree Camp at Rome for one hundred crippled children.

These facilities are available to all Maine children and applications for admission can be made by the doctors contacting directly the Hospital or Camp.



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TRICHINOSIS WITH CASE STUDIES

DONALD HORSMAN, M. D., Lewiston, Maine*

INTRODUCTION

Trichinosis is a parasitic disease for which there is no known specific therapeutic agent, but which has a high morbidity and a significant mortality. Too many times this disease is considered a benign and self-limited process. When one considers that the mortality is between 5% and 6%, it is a disease which cannot be lightly regarded.

HISTORICAL

It is doubtful that the disease process was known at the time of Moses. However, there certainly must have been an accurate observation, probably following an epidemic of trichinosis after eating infected pork, that led to the Mosaic law which can be found in Deuteronomy 14:7, 8: "and the swine . . . is unclean unto you; ye shall not eat of their flesh . . ."

In 1822, Tiedemann was the first to remark on the calcified cysts in man. It was James Paget who, with the aid of Sir Richard Owen, actually described the parasite and gave it the name *Trichina spiralis*. Joseph Leidy in 1846 first reported the larvae in hog muscle. The relationship of the larvae in the pig to the disease in man was first observed by Zenker in Dresden. A 21-year-old servant girl became ill and died of what had been diagnosed as typhoid fever; at autopsy, examination of the muscles of the arms and legs showed many larvae. This led to examination of the food in the girl's household. Ham and sausage were heavily infested.

Most of the epidemics of any size have been reported from Europe, especially Germany. In 1870, elaborate laws for microscopic inspection of pork were in force. In 1895 in Prussia alone, there were 27,089 inspectors for trichina.

LIFE CYCLE

Trichinosis is a disease that is produced in man only by ingestion of the muscles of animals infested with trichina or through by-products of these animals. The following is part of a list of animals found infested in nature and which humans might conceivably eat: Rabbits, raccoons, bears, pigs, porcupines. A second list of naturally infested animals which some of the above-named animals may eat is cats, dogs, foxes, badgers, rats, mice and hedgehogs. No trichina have been found in birds, cows, deer and other herbivorous animals.

In man, the encapsulated larvae are ingested and go to the small intestine where the capsule is dissolved. The young larvae then attach themselves to the intestinal mucosa. In 2 days they have matured sexually and mated. The male dies and the female burrows into the intestinal mucosa where she deposits the larvae at about the rate of 1,000 per adult female at the end of 6 days.

The larvae pass from the lymph canals by way of the thoracic duct into the venous blood flow. These larvae have a high predilection for striate muscle and the height of infiltration into this tissue is about 10 days after infection. At about 35 days, the larvae be-

* Medical Staff, Central Maine General Hospital.

come encapsulated in the muscle. These cysts begin to calcify between 6 and 18 months. These larvae have been known to remain viable up to 10 years in hogs and up to 30 years in man.

INCIDENCE

The incidence of trichinosis in the United States has been based on different series of autopsies which have shown the cysts in the diaphragm and in other muscles. These figures have varied from 17.5% to 27.6%. Hall in 1937 estimated that 10% to 20% of the adult population in the United States have acquired trichinosis.

The incidence of infection in swine depends on whether the pigs are grain fed, or fed cooked or uncooked garbage. For the country as a whole, it is estimated between 1% and 2% of swine are infested.

In Maine from 1949 to 1953, there were 25 reported cases with 2 deaths. From 1953 to June, 1954, there were 6 more cases with 1 death. This makes 31 cases with 3 deaths which is an 9.7% death rate!

PATHOLOGY

The chief and typical pathological findings of trichinosis are usually considered to be in the striate muscles. However, when one considers that the larvae are disseminated throughout the body by the seeding of the blood stream, one would suspect that all organs should be affected. This is true to a certain degree. When death occurs, it is not due to striate muscle involvement but due to complications resulting from migration of the larvae through the myocardium, lungs and central nervous system with other complications due to thrombosis, nephritis and enteritis.

After infiltration into the *skeletal muscle*, there is a foreign body reaction with an acute inflammatory cellular response. This is followed by connective tissue formation and eventually encapsulation and calcification. Muscles most frequently involved in order are: diaphragm, masseter, tongue and larynx, neck, intercostal, extraocular and flexors of thigh and back.

The mucosa of the *gastrointestinal tract* shows pathology ranging from urticaria to hemorrhage and to ulceration.

No cysts have ever been found in the *heart*. The pathologic findings are due to the inflammatory response to the parasites passing through the myocardium. This is essentially an acute interstitial myocarditis with areas of necrosis. The cellular infiltrate is made up of lymphocytes, eosinophils and polymorphonuclears. Larvae have been found in the heart muscle after 54 days of infection.

In the *brain*, lesions are found primarily around thrombosed vessels which lead to granulomatous nodules. Trichinae frequently have been found in the spinal fluid.

The *lungs* are one of the first organs to be showed by the larvae since they are deposited into the venous blood stream via the thoracic duct, by-passing the liver. The larvae go through the right side of the heart and on to the fine capillary system of the lesser circulation. The lungs show many small foci of hemorrhage with trichinae in these foci.

In general, there is an inflammatory reaction in all other organs due to migration of the larvae through them. In the liver, there has been shown fatty degeneration and in the kidneys it is mostly cloudy swelling although infarction and focal hemorrhages have been reported due to trichinae.

DIAGNOSTIC TESTS

As in most diseases, the first medium of diagnosis is clinical evaluation. However, since this disease may have many manifestations and varied symptomatology during the disease process itself, there has been a need for more confirmatory diagnostic tests. Hall in 1937 listed 50 diseases which have been mistaken for trichinosis and Gould mentions 20 common conditions in differential diagnosis. In the 4 cases studied in this paper, only one had the correct admission diagnosis while others had diagnoses of nephritis, "flu" and sinusitis.

(1) Blood

Leukocytosis with eosinophilia is a more or less constant finding. This eosinophilia usually occurs in about 10 days, and reaches its height of 20% to 40% during the 4th week of infection. This percentage may go much higher as in the case of the author himself who had 84% eosinophilia with only a mild case. There is no apparent correlation between the eosinophilia and the severity of the disease. This eosinophilia usually disappears in 3 to 4 months but may persist for years.

The erythrocyte sedimentation rate is usually normal.

(2) Immunological tests

Bachman in 1928 improved the method of purifying the trichina antigen which Ströbel had prepared 18 years previously. This led to the development of the intradermal and precipitin tests.

Spink and Augustine also in 1928 used 0.1 c.c. of 1:10,000 intradermally on 60 patients with known trichinosis and had positive reactions in 59.

Today there is a *Trichinella* Extract antigen (Lederle). 0.05 to 0.10 c.c is given intradermally together with a control of saline. However, there are certain limitations to this test:

(1) Positive reactions do not occur until the 2nd week of infection.

(2) A positive reaction may be due to (a) previous infection with *Trichina* or (b) a cross-immunity caused by present or past infestation with other parasites such as trichuris.

The precipitin test usually is positive after the 4th week of infection. This test has been shown to be more sensitive and more specific. 0.3 c.c. of serum with 0.3 c.c. of 1:100 antigen are incubated at 37.5° C. for one hour. A white ring occurs at the junction of the 2 fluids when positive.

(3) The biopsy of muscle tissue has been an important diagnostic measure. This procedure has several disadvantages, chiefly the inconvenience and expense to the patient and there is often difficulty in finding the larvae in a given biopsy specimen of proven cases of trichinosis at autopsy. It is not advocated by many.

(4) Other tests

The larvae have been found in the blood, feces and spinal fluid but this is a laborious technic.

SIGNS AND SYMPTOMS

The signs and symptoms of trichinosis are markedly varied in kind and severity. The disease is usually divided into 3 stages:

(1) The *intestinal or invasion* stage occurs from the 2nd to 7th day after infection. It occurs suddenly and consists of malaise, nausea and vomiting, diarrhea or constipation, remittent fever (up to 104°) and abdominal cramps.

(2) The *stage of migration* into muscles is accompanied by fever and chills, edema of eyelids and face, conjunctivitis, disturbances of vision and muscular pains, particularly of the masseter, neck muscles, flexors of the extremities and respiratory muscles. The muscle pain causes weakness, stiffness and even contractures. Respiratory symptoms may be dyspnea, cough, hemoptysis and hoarseness. Neurologic manifestations consist of headache (usually supra-orbital), vertigo, deafness, delirium and even coma. Hurd states that trichinosis with neurological involvement may closely resemble encephalitis, meningitis, poliomyelitis or polyneuritis. The cutaneous lesions are those of a fine, macular rash over all the body but may vary all the way to furunculosis. The cardiac symptoms depend on the amount of involvement of the myocardium. These symptoms vary from those of localized infarctions to those of progressive cardiac failure. The electrocardiogram usually shows a small QRS complex with intraventricular block and flattening or inversion of the T waves in lead II.

It is, therefore, easy to see from this multiplicity of signs and symptoms and the number of systems involved which may include all or, more often, parts of those mentioned above how this diagnosis might be missed.

(3) The *stage of encystment or convalescence* begins in 3-4 weeks when fever and muscular pain decrease. Evidence of heart failure may appear at this time especially if the patient is allowed to return to normal activity too soon.

Complications which may arise are those due to

damage to the tissues of the different systems by the trichina. Myocarditis, vascular thrombosis, paraplegia, muscular atrophy, encephalitis, bronchitis, pneumonia, premature delivery and emotional disturbances have been described.

TREATMENT

There still is no specific treatment for this disease. Many things have been tried without avail: purging, X-ray, immune serum, thymol, anthelmintics, arsenicals, calcium and sulfonamides.

Treatment is primarily symptomatic with antipyretics, prophylactic antibiotics, supportive heart drugs and the maintenance of nutrition, electrolyte and fluid balance.

It has been observed that possibly many of the symptoms may be due to an allergic reaction. The eosinophilia associated with the disease strongly suggests this. Luango, Reid and Weiss reasoned that ACTH and Cortisone is known to act dramatically on those diseases which are due to an antigen-antibody reaction. In 1951 they gave ACTH to three patients who had trichinosis. There was a remarkable reduction of fever, pain and eosinophilia. However, later animal experiments showed no anatomical changes in the larvae and no decrease in the mortality of the animals infected with M.L.D. of trichinae who were later treated with ACTH.

Roehm in 1952 reported a patient with severe C.N.S. involvement who responded dramatically to ACTH during three crises. 20 mg. of ACTH in an intravenous infusion was used each time. This therapy did not prevent eventual damage to the brain and myocardium which was apparent 3 weeks later.

Rosen reported a severe case of trichinosis to whom he gave 700 mg. of Cortisone in 4 days. The patient was asymptomatic after the initial dose. When the treatment was discontinued after 4 days, the patient's condition rapidly deteriorated and the Cortisone had to be continued for 14 days.

Recently Harrell has recommended that ACTH in saline suspension be given intramuscularly 20 mg. every 6 hours. If Cortisone is used, 100 mg. doses should be given every 8 hours. The doses of both drugs should be decreased on the second day and again decreased on the third day and discontinued on the sixth day. Therapy should be resumed if symptoms recur in 2 or 3 days.

CONTROL

The federal government has tried different measures to control this disease but none has been feasible. It was shown in Germany that one-third of the cases of the disease were traced back to government-inspected pork. Here in the United States federal inspection, even though enforced, would have little effect over pork processed for intrastate consump-

tion. Therefore, this leaves us with the following measures which may be divided into two classes:

(1) Preventing infection of pigs (a) by feeding pigs only garbage which has been sterilized (heat of 50° C. for one hour makes larvae non-infective); and (b) by keeping piggeries free of rats since these rodents harbor the larvae and may be eaten by the pigs.

(2) Preventing infection of man (a) by thorough cooking of pork and its by-products and (b) by education of the public.

It should be remembered that salting and smoking of pork is not effective in rendering pork non-infective.

CASE REPORTS

I. A 40-year-old female first seen October 4, 1953, with edema of the lids. In the next few days she developed pains in the back and legs and nausea. Her face continued to swell and fever went to 103°. Hospitalization was advised for study of renal function, since there was a history of toxemia of pregnancy and chronic nephritis. On October 10, 1953, she was admitted to the hospital. Her WBC was 8,300 with 8% eosinophils. A history of ingestion of poorly cooked pork was obtained. A blood count on October 14 was 10,600 and eosinophils 48%. The hospital course was undramatic. The patient was discharged well, October 26th.

II. A 41-year-old male (husband of case No. 1) was seen October 4, 1953, with complaints of abdominal cramps and diarrhea. He was diagnosed as having grippe. On October 13, 1953, he was admitted to the hospital because of fatigue from the diarrhea and to have a hemorrhoidectomy. The patient had the same poorly cooked pork as case No. 1. During hospitalization the patient developed edema of the lids and generalized muscle pains. The diarrhea was partially controlled with paregoric. By October 26th the patient was feeling much better, he went to the bathroom and when he returned to bed he convulsed, became cyanotic and perspired. His pulse and blood pressure rapidly failed and he was pronounced dead 5 minutes later.

At autopsy a frozen section of the myocardium showed many areas of involvement by the trichinella spiralis larvae. The prepared sections showed pulmonary edema, toxic splenitis, acute enteritis and encysted larvae in the diaphragm. The cause of death was myocarditis.

III. A 27-year-old male on August 27, 1953, developed chills and fever, pain in the legs and slight nausea and a history of eating poorly cooked pork

products. This progressed to temperature of 102° to 104°, vomiting and edema of the lids. On September 1, 1953, the patient was admitted to the hospital with a diagnosis of trichinosis. A white blood count on admission was 10,300 and eosinophils 26%. During the first two hospital days, the patient was unable to eat or drink due to vomiting and was sustained with intravenous fluids. On the third hospital day Cortisone was given, 100 mg. every 8 hours for 2 doses and then every 12 hours for 3 doses. There was marked improvement and the patient was able to eat. He was discharged well on the 8th hospital day on 50 mg. Cortisone b.i.d.

IV. A 15-year-old male was admitted to the hospital after 2 days of edematous lids and swollen face and a temperature of 100°. The admission diagnosis was sinusitis. During the first 2 days of hospitalization, the patient continued to have fever and pain in the back of the neck. The white blood count at this time showed 7,000 including 31% eosinophils. After a history of poorly cooked pork a presumptive diagnosis of trichinosis was made. The patient was started on Cortisone 100 mg. t.i.d. for the first day, 100 mg. b.i.d. for the second day and 25 mg. q.i.d. thereafter with prompt improvement of all symptoms.

SUMMARY

A review of literature on trichinosis together with four current case reports is presented. Emphasis has been on the seriousness of the disease, the problem of differential diagnosis, the presence of specific diagnostic skin tests and the use of ACTH and Cortisone as therapeutic agents.

ACKNOWLEDGEMENT

To R. Haas, M. D., and W. Spear, M. D., for their cases in this report.

BIBLIOGRAPHY

1. Roehm, D. C.: Trichinosis. *Ann. Int. Med.*, 40:5, May, 1954.
2. Yearbook of Medicine, Ed. Yearbook Publishers Co., Chicago, 1952.
3. Hurd, R. W.: Focal cerebral Injury due to *Trichinella Spiralis*, *J. Nerv. and Ment. Dis.*, 117:526, June, 1953.
4. Gould, S. E.: Trichinosis, Pub., Charles C. Thomas, Springfield, Ill., 1945.
5. Luango, M. A., Reid, D. H., Weiss, M. W.: The Effect of ACTH in Trichinosis, *N. E. Jour. of Med.*, 245:20, Nov., 1951.
6. State of Maine Department of Health and Welfare Report, Jan. 30, 1954: Trichinosis.
7. Belding, D. L.: Textbook of Clinical Parasitology.
8. Gould, S. E.: Pathology of the Heart.
9. Covey, McMahon, Myers: *J. A. M. A.*, 140-1212, Aug. 13, 1949.

HYPERNEPHROMA SIMULATING URETERAL STONE

DANIEL R. SHIELDS, M. D., Lewiston, Maine*

It has always been a cardinal rule of urology that "hematuria demands cystoscopic investigation." Unfortunately, and sometimes tragically, this rule is forgotten. This is especially true in cases of hematuria accompanied by renal colic in young people. Physicians can be lulled into a false sense of security by the patient who gives a straightforward history consistent with a diagnosis of ureteral stone. When the pain and bleeding stop, the patient does not want to be hospitalized, and unless urged by the physician, further investigation is not done.

RENAL COLIC AND HEMATURIA

In the short space of one month, two patients were referred to the Central Maine General Hospital with the admitting diagnosis of ureteral stone, and on further investigation, each proved to have a hypernephroma. It is not the error in diagnosis which instigated this article, but rather the delay which took place prior to admission, waiting for the "stone" to pass. In each case, the initial syndrome had been renal colic associated with hematuria, and in each case there had been a delay of months before the patient was referred for urologic work-up. These two case reports are below.

CASE REPORT

Patient 1. B. L., a 46-year-old married woman, had sudden onset of sharp, crampy, intermittent, severe pain in the right flank, associated with hematuria four months prior to admission. Pain was relieved by narcotics, and after two days, the pain and hematuria ceased. Similar episodes occurred three months and three weeks prior to admission. Physical examination on admission showed a well-nourished, well-developed woman who looked ten years younger than stated age. Except for a grapefruit-size mass in the right upper quadrant which was freely movable, physical examination was within normal limits. On her second hospital day, cystoscopy and retrograde pyelograms were done. These showed a space-occupying lesion in the lower pole of the right kidney with displacement and distortion of the middle and lower calyces. A diagnosis of malignant tumor of the right kidney was made, and a right nephrectomy was done. Unfortunately, tumor which could not be removed was spread along the vena cava and aorta.

The pathological report was hypernephroma with invasion of the renal vein and capsule. She was discharged home on her twelfth post-operative day, but is now succumbing to metastatic disease.

Patient 2. M. C., a 39-year-old married male had the sudden onset of severe, crampy pain radiating from the left groin to the left testicle, associated with hematuria, seven months prior to admission. Relief was obtained by narcotics, and the pain and bleeding subsided in four days. Six months and also one week prior to admission he had similar episodes of pain and bleeding. Physical examination on admission was entirely within normal limits. Cystoscopy and retrograde pyelograms were done, revealing a space-occupying lesion in the lower pole of the left kidney, displacing the middle and lower calyces. There were some filling defects in the renal pelvis. On his third hospital day a left nephrectomy was done. The kidney was slightly larger than normal and contained a two-by-two-inch solid tumor in the lower pole. The pathological report was hypernephroma with no blood vessel invasion. The filling defects seen in the pyelogram were blood clots. The patient was discharged on his ninth post-operative day and he has continued well since discharge. His prognosis is good.

CONCLUSIONS

These cases demonstrate how well a blood clot passing down the ureter can simulate a ureteral stone. The first case report demonstrates how a delay in proper diagnosis of hematuria can be tragic. The finding of blood in the urine of a patient with renal colic, therefore, does not clinch the diagnosis of ureteral stone, but rather demands that further investigation be done. If we all adhere to the rule "hematuria demands cystoscopic investigation," the delay in making the correct diagnosis will be avoided. It is a further diagnostic aid if the cystoscopy is done while the patient is still actively bleeding.

SUMMARY

Two cases have been reported in which hematuria, secondary to a malignant renal tumor, was accompanied by renal colic. The great similarity between these cases and renal colic caused by ureteral stone has been presented. The need for cystoscopic investigation of all cases of hematuria is emphasized.

* Urological Staff, Central Maine General Hospital.

HISTOPLASMOSIS IN A MAINE RESIDENT

RUDOLPH HAAS, M. D., Lewiston, Maine*

While it would not seem justified to publish every case of histoplasmosis that occurs in the Midwest, it appears worthwhile indeed to call attention to the rare New England patient who shows evidence of this disease without ever having even traveled through areas where histoplasma infections are endemic.

INCIDENCE

Notoriously, most cases of histoplasmosis occur in the Central Mississippi and Ohio River valleys and in Michigan, although sporadic cases have been reported from twenty of the forty-eight States and from ten countries outside the U. S.² Few infections have been reported from the Eastern United States and none from New England until the first case was described in a Vermont resident in 1953 by French, Jillson and Crispell.¹ Histoplasmin skin tests at the V. A. Pulmonary Clinic at Brooklyn, N. Y., over a period of eighteen months, yielded nineteen positive reactors who had pulmonary lesions with negative tuberculin tests.³ It becomes evident, therefore, that histoplasmosis must be included in the differential diagnostic considerations of unexplained lung lesions as well as in obscure infections involving the reticulo-endothelial system and the adrenal glands.

ISOLATION OF ORGANISM

Histoplasmosis was first described and named by Darling in 1906; the causative organism was isolated as *histoplasma capsulatum* in 1934 by DeMonbreun;⁷ this fungus grows extensively in the ground as a saprophyte and seems particularly prevalent in the dirt of chicken houses but it has also been isolated from silos and tree stumps.^{1, 4, 5} The apparent association with animal excreta is of no direct significance, however.⁶

CLINICAL FORMS

As originally described by Darling and reviewed by Meleney in 1940,⁸ the diseases represented the generalized, usually fatal form of histoplasmosis which involves the reticulo-endothelial system, the adrenals and the central nervous system.⁹ During the past 10-15 years, however, the benign pulmonary form has been prevalent. This type is apparently due to the inhalation of the spores of *H. capsulatum* and produces varied pulmonary infiltrations with clinical systems of cough, fever, malaise, occasional chest pains and blood-tinged sputum. Others may be asymptomatic and frequently the only evidence of the infection are disseminated pulmonary calcifi-

cations found on routine chest X-ray examination.¹⁰ A third form of histoplasmosis, that of localized infections, usually ulcerations of mucous membranes, can occur separately or in the course of the generalized form of the disease. *H. capsulatum* may be isolated from these lesions or from sputum, blood and sternal bone marrow. Within three weeks complement-fixing antibody reactions can be obtained, the titer of which will rise, then fall and disappear in about five months. The histoplasmin skin test will become positive and remain so indefinitely. Histoplasmosis can easily mimic pulmonary tuberculosis, in its primary and re-infection types, sarcoidosis or atypical pneumonia.

It was these disseminated calcifications which were found in rather large numbers in tuberculin negative patients in certain areas of the United States which attracted the attention to histoplasmosis and the recognition of the fact that this infection can occur in an asymptomatic fashion.¹¹ Survey studies particularly in the Kansas City area have furnished a great deal of material in this respect. No cases of this type, however, have been reported from this part of the country. The only New England case mentioned above, concerned a resident of Vermont, who had the localized type of infection, possibly with dissemination to the adrenals.

INFECTION IN MAINE RESIDENT

Case report: C. C., a 20-year-old student at a teachers' college was taken ill in 1940 with fever, cough and weight loss. There was no family history of tuberculosis and there were no known contacts; the patient had never traveled beyond the New England States and had always been well. A chest X-ray was taken four weeks after the onset of her illness and some pulmonary lesions were found. No details of this examination are available. The patient was placed on partial rest regime and gradually resumed normal activity. In 1947, when she came under my observation, she had another bout of cough and fatigue. A chest X-ray was taken and disseminated parenchymal as well as hilar calcifications were found. Tuberculin skin tests with first and second strength PPD were done and repeated but all were negative. Histoplasmin skin test was then performed and a strongly positive reaction was obtained. Since that time periodic chest films were taken but no essential change was ever seen. A histoplasmin complement-fixation test was carried out when this test became available in 1948; the result was negative. The patient has been doing well and has not had any further trouble as far as her lungs are concerned.

* Medical Service, Central Maine General Hospital.



SUMMARY

The entity of histoplasmosis is briefly reviewed and the rarity of this infection in New England is stressed. However, this disease ought to be considered in any differential diagnosis of unusual pulmonary lesions or disseminated calcifications. A case of the benign pulmonary form of histoplasmosis with multiple calcifications is presented.

1. French, E. E., Jillson, O. F., and Crispell, L. S.: Histoplasmosis in a life-long resident of New England. *N. E. J. Med.*, 249:270, 1953.
2. Parsons, R. J., and Zarafonitis, C. J. D.: Histoplasmosis in man. *Arch. Int. Med.*, 75:1, 1945.
3. Spitz, L. J., and Schwartz, B.: Histoplasmin in non-endemic regions. *Am. J. Med.*, 15:264, 1953.
4. Loosli, C. G. et al. Pulmonary Histoplasmosis in a farm family. *J. Lab. and Clin. Med.*, 43:669, 1954.
5. Mack, J. K.: The isolation of *H. capsulatum* from a hollow tree. *J. Pediat.*, 44:46, 1954.
6. Grayston, J. T., and Furcolow, M. L.: Occurrence of Histoplasmosis in epidemics. *Am. Rev. Tuberc.*, 43:665, 1953.
7. Cecil and Loeb: *Textbook of Medicine*. W. B. Saunders, 1951.
8. Meleney, H. E.: Histoplasmosis. *Am. J. Trop. Med.*, 20:603, 1940.
9. Shultz, D. M.: Histoplasmosis of the central nervous system. *J. A. M. A.*, 151:549, 1953.
10. Furcolow, M. L.: Disseminated pulmonary calcifications. *Postgrad. Med.*, 8:15, 1950.
11. Palmer, C. E.: Non-tuberculous pulmonary calcifications and sensitivity to histoplasmin. *Pub. Health Rep.*, 60:513, 1945.

1955 ANNUAL SESSION NOTES — FOR YOUR CALENDAR

Place and Dates

The Samoset, Rockland, Maine

June 19, 20 and 21

Sunday — June 19

Governor Edmund S. Muskie will be the guest speaker at the opening meeting of the 102nd annual session of the Maine Medical Association at The Samoset, Rockland, Maine, on Sunday, June 19, at 6.30 P. M.

House of Delegates

June 19-20

The House of Delegates of the Maine Medical Association will meet on Sunday, June 19, at 2.00 P. M. and on Monday, June 20, at 9.00 A. M.

Luncheon Meetings

County Secretaries

There will be a luncheon meeting of County Secretaries on Monday, June 20, at 12.30 P. M. Speaker to be announced.

Continued on page 72

THE MANAGEMENT OF PERIPHERAL VASCULAR DISEASE IN DIABETICS*

RALPH ZANCA, M. D., Lewiston, Maine**

INCIDENCE

Since the introduction of insulin and its widespread use in the treatment of diabetes mellitus, the most important problem in the management of patients with this disease has become the treatment of degenerative vascular disease. In recent years the unusual frequency of arteriosclerosis involving chiefly the coronary and leg arteries is borne out by morbidity and mortality rates in diabetes. Joslin and his group¹ emphasize that as a cause of death of the diabetic, arteriosclerosis has risen threefold since the Naunyn period prior to 1914, while coma has dropped to one-twentieth of its former incidence. What is even more distressing is the frequency of vascular disease in young patients in the third or fourth decade of life.

It is not within the scope of this paper to discuss the cause of these degenerative complications. However, the increase in the frequency of these complications seems to bear direct relationship to the increased life span of diabetics.

Wilson, Root and Marble,^{2, 3} in a recent study of 247 patients, concluded that the control of diabetes is more important than any known factor such as duration or severity of diabetes in preventing these degenerative complications. Whatever the specific etiological factors may be, certainly the degree of control of diabetes and the duration of diabetes appear to be the most important factors concerned.

TYPE OF VASCULAR LESION

The type of vascular lesion with which we are concerned is not the medial type of arteriosclerosis. This is the more common form characterized by necrosis and calcification of the medial layer of the artery. Such vessels are easily palpable, they are thicker and harder than normal and a considerable portion of them can be visualized by X-ray, showing varying degrees of density and calcification. The vessels in this form of arteriosclerosis are not necessarily narrowed to a point at which they retard the flow of blood and are not the common cause of gangrene of the extremities. At one time it was felt that diabetes was the cause of this form of vascular disease in the diabetic. However, more careful analysis⁴ has shown that medial sclerosis frequently exists before the onset of diabetes and evolves independently, irrespective of diabetes. Atherosclerosis is the vascular lesion

characteristic in diabetes and occurring more frequently in diabetes than any other disease. This lesion is characterized by an abnormal deposition of fat into the intimal layer of the artery, followed by calcium deposition. This type of lesion is found in the larger, elastic arteries such as the thoracic aorta and its branches including the coronaries, the abdominal aorta, iliac arteries and upper two-thirds of the femoral arteries. Beginning in the popliteal area, the histologic picture in the diabetic changes to a fibrinous hyperplasia of the intima, even to the point of complete occlusion of the lumen. This is the type of lesion that leads to diabetic gangrene.

LESIONS OF FEET AND LOWER EXTREMITIES

The most common types of lesions involving the feet and lower extremities in diabetics are infections, gangrene and neurogenic lesions. The latter are some of the most disturbing and baffling of all lesions seen in diabetics. These neurogenic lesions usually occur on the plantar aspect of the feet and consist of an ulcerated, infected area surrounded by an area of thick callus and frequently extending into a metatarsophalangeal joint. There is partial or complete anesthesia to pin-prick in the involved and surrounding area and the arterial supply is usually adequate. Healing of this type of lesion is usually prompt, but recurrences are the rule in spite of any precaution taken, unless all of the anesthetic area on the plantar aspect of the foot can be excised.

The immediate management of neurogenic lesions is relatively simple and clear cut. *First of all*, the patient should be placed on complete bed rest since it is a well known fact that weight-bearing always leads to extension of the ulceration and hence retards healing. *Secondly*, the diabetes should be brought under control by the use of diet and insulin, otherwise healing of the lesion will be delayed and the infection will continue to spread in spite of the use of antibiotics. The diet should be adequate in protein and carbohydrate to aid in wound healing and supplemented by vitamins, particularly of the B complex group because of their beneficial effects on neuropathic changes. *Thirdly*, the infection should be brought under control by the use of antibiotics—the type of antibiotic used depends on culture and sensitivity studies. *Finally*, the lesion should be cleansed with alcohol or hexylresorcinol and covered with a sterile dressing. Pressure from the bed clothes or dressings should be avoided as this will also impair or retard healing.

* Presented in part at the Fall Clinical Session of the Maine Chapter of the American College of Surgeons, December 1, 1954.

** Medical Service, Central Maine General Hospital.

MANAGEMENT OF PERIPHERAL VASCULAR DISEASE

The methods used for the management of peripheral vascular disease in diabetics and the prevention of complications such as gangrene and infection may be grouped under three main headings: 1) Physical procedures; 2) Vasodilators; 3) Sympathectomy.

Physical Procedures: The effects of various physical procedures upon the circulation in the limbs has been extensively studied in recent years by Wilkins and his group.⁵ These authors studied the effect of heat, posture and pressure cuffs in order to obtain information of practical value in the physical therapy of peripheral vascular disease. They found that the vasodilatation produced by general body heating is greater than that produced by direct local heating of a limb. The first type is produced by widespread activity of the sympathetic nervous system while the second involves vasodilatation only in the local tissues being heated. Moreover, with the body already heated the blood flow in a limb does not become much greater when the limb is also heated locally. They also showed that the effects of sympathetic nervous vasoconstriction may reduce the blood flow in extremities even when they are heated locally. Even the vasodilatation produced by reactive hyperemia may be overcome by very strong or painful reflex vasoconstrictor stimuli. Thus, the local application of heat in an ischemic limb is a dangerous procedure and the use of hot water bottles, electric heating pads and hot soaks are to be avoided at all times.

The effects of posture on the blood flow through an extremity was also studied. They found that elevation of a limb above the heart level lowered arterial pressure without greatly affecting venous pressure, thereby lowering the arteriovenous pressure gradient and reducing the blood flow. When the limb was lowered the blood flow was greater than when the limb was horizontal, even though the venous pressure increased and arteriovenous pressure gradient remained essentially unchanged. The reason advanced for the greater blood flow in the dependent limb was that the peripheral resistance was lowered by passive distention of the arterioles due to the hydrostatic increase in local intravascular pressure. Thus, there is no sound basis for elevation of a limb above the horizontal, in fact a contraindication exists since this decreases blood flow. Since muscular activity in a limb increases the utilization and need for oxygen, it is desirable in patients with a great degree of ischemia to use *passive* rather than active intermittent dependency. The increase in blood flow and oxygen tension found in the dependent limb supports such therapy. These authors also noted that during Buerger's exercises a side loss of arterial pressure in the proximal vasodilated muscles may deprive the more distal and more needy parts of blood flow.

They could obtain no evidence in support of the

rationale of intermittent venous congestion to relieve ischemia. All the data indicated that the use of pressure cuffs retards the blood flow.

Vasodilators: In recent years several new drugs have come into use for the treatment of peripheral vascular disease. In 1946, Katz⁶ reported on the use of a 2.5% solution of diethyl ether administered intravenously in a 5% solution of glucose in distilled water. The solution had to be refrigerated because of its explosive potentialities. It was given slowly and repeated daily over a period of 12 days. He reported marked relief of pain in a group of diabetic patients with arteriosclerosis and stated that 80% of patients treated for impending gangrene were saved from amputation. However, this drug proved to be too toxic for general use.

Wirtschafter and Widmann,⁷ who felt that the beneficial effects of diethyl ether were due to the release of histamine, used a combination of ascorbic acid and histidine. They injected 500 mg. of sodium ascorbate intravenously along with an intramuscular injection of 5 c.c. of 4% aqueous solution of histidine and subcutaneous injection of 100 mg. of sodium ascorbate. This was repeated at 4 to 12-hour intervals. They reported good results in a small group of patients, none of whom required amputation. However, the usual tests for determining blood flow showed no appreciable change. Allen and his co-workers at the Mayo Clinic stated that this form of therapy had been found to be of no appreciable value.

Mufson,⁸ reported on a series of patients treated with intraarterial histamine at weekly and bi-weekly intervals, 1 mg. of histamine base in 500 c.c. normal saline being used. He reported very good results and was able to demonstrate improvement in skin temperature, oscillometric readings and the diffusion of radioactive sodium. However, he was also able to demonstrate that these beneficial effects could be neutralized each time by painful neurogenic stimuli, e.g., the pressure from an ingrown toenail. By the use of radiosodium diffusion curves, he measured the effectiveness of papaverine, aminophylline, Etamon and sympathectomy in obliterative arteriosclerosis. He demonstrated that papaverine was ineffective in this condition. Aminophylline also failed to improve the circulation of three patients with obliterative endarteritis of the popliteal artery. Etamon increased the blood flow in a normal patient, but failed to do so in several patients with arteriosclerosis. Etamon lengthened the peripheral circulation time whereas histamine shortened it. This response to Etamon again illustrated the fallacy of expecting a generalized vasodilatation to increase the blood flow of an extremity with partially obliterated arteries.

Histamine:

The most dramatic responses were obtained with intraarterial histamine, sympathetic lumbar block and

sympathectomy, with histamine producing the most marked changes. The most important finding was that pain and fear could prevent any of these vasodilators from being effective. The recognition of this fact will prevent expecting the impossible from the use of histamine or sympathectomy and the limited effectiveness of other vasodilator drugs, especially in far advanced cases of obliterative vascular disease where pain is an outstanding feature.

The same holds true for other vasodilator drugs in use, such as Priscoline and Roniacol Tartrate. It would seem that the vasodilator drugs are of value mainly in vasospastic states of the extremities, but of very limited value in obliterative vascular disease.

Sympathectomy: Since the medical treatment of arteriosclerosis of the lower extremities has been disappointing, an increasing number of patients are being subjected to a lumbar sympathectomy as a means of improving results. With respect to diabetics, it should be kept in mind that the occlusive process in the smaller arteries of the leg and foot is widespread often to the point of complete occlusion of the lumen. Sympathectomy is not a cure for this type of lesion since it does not reopen the occluded arteries. Its action is limited to increasing the collateral blood flow.

Edwards¹⁰ reported on 100 patients with symptomatic arteriosclerosis of the lower extremities who were subjected to sympathectomy. In general the results were good, 92 patients leaving the hospital improved. There were 27 diabetic patients in this group and only 17 obtained good results, since both deaths and a disproportionate number of subsequent amputations occurred in this group. This is not surprising when one considers the character of the lesion found in diabetics. He also found that patients with necrosis down to the bone proximal to the toes did so badly as to suggest that this finding constituted the only definite contraindication to the operation. Other unfavorable factors were the presence of extreme hypertension and the previous loss of the contralateral limb. Since the poor results were found in patients with threatened or actual necrosis, this procedure should be attempted early in the course of the disease where claudication is present without prominent signs of impending necrosis.

SUMMARY AND CONCLUSIONS

The most important problem in the management of diabetics has become the treatment of arteriosclerosis involving chiefly the coronary and the leg arteries.

The type of vascular lesion encountered in diabetics is atherosclerosis of the larger arteries and a fibrinous hyperplasia of the intima, even to the point of occlusion of the lumen in the smaller arteries. The

latter is the type of lesion that leads to diabetic gangrene.

The various methods used for the management of peripheral vascular disease in diabetics are discussed.

Physical procedures such as the application of heat in an ischemic limb is a dangerous procedure and is to be avoided at all times. The ischemic limb is best kept in a slightly dependent position since the blood flow is greater than when the limb is horizontal. Passive rather than active intermittent dependency is preferred since muscular activity in a limb increases the utilization and need for oxygen. Intermittent venous occlusion is of no value in the treatment of ischemia since it retards blood flow.

The use of various vasodilator drugs and their limitations is discussed. The most important fact noted was that *pain* and *fear* could prevent any of the vasodilators from being effective in obliterative vascular disease.

The use of sympathectomy early in the course of the disease is advocated since the poor results from this procedure are found in patients with threatened or actual necrosis.

BIBLIOGRAPHY

1. Joslin, E. P., Root, H. F., White, P., Marble, A., and Bailey, C. C.: *The Treatment of Diabetes Mellitus*, Phila., Lea and Febiger, 1946, Chap. V.
2. Wilson, J. L., Root, H. F., Marble, A.: Prevention of Degenerative Vascular Lesions in Young Patients by Control of Diabetes, *Am. J. Med. Sci.*, 221:479-489, May, 1951.
3. a) Root, H. F., Marble, A., Wilson, J. L.: Relation of Control of Diabetes to Vascular Degenerative Lesions in Young Diabetics, *Trans. Am. Clin. and Clin. Assn.*, Vol. 52, 1950.
b) Root, H. F., Sinden, R. H., Zanca, R.: Factors in the Rate of Development of Vascular Lesions in the Kidney, Retinae and Peripheral Vessels of the Youthful Diabetic, *Am. J. Dig. Dis.*, 17:179-186, 1950.
4. Moschowitz, E.: The Relation of Hyperplastic Arteriosclerosis to Diabetes Mellitus, *Ann. Int. Med.*, 34:1137-1162, 1951.
5. Wilkins, R. W., Halperin, M. H., Litter, J.: The Effects of Various Physical Procedures on the Circulation in Human Limbs, *Ann. Int. Med.*, 33:1232-1245, 1950.
6. Katz, R. H.: Intravenous Ether: A New Approach to the Therapy of Arteriosclerosis, *Am. Heart J.*, 35:869, 1948.
7. Wirtschafter, Z. I., Widman, R.: Elaboration of Histamine in Vivo in Treatment of Peripheral Vascular Disorders: Preliminary Report, *J. A. M. A.*, 133:604-605, 1947.
8. Mufson, I.: A New Treatment for the Relief of Obliterative Diseases of Peripheral Arteries, *Ann. Int. Med.*, 29:904-913, 1948.
9. Mufson, I.: Responses of the Abnormal Arterial Circulation to Various Stimuli as Studied by the Use of Radioactive Sodium. II. Intraarterial Histamine, Papaverine, Aminophyllin and Adrenalin; Sympathectomy and Etamon: Pain, *Ann. Int. Med.*, 34:428-441, 1951.
10. Edwards, E. A., Crane, C.: Lumbar Sympathectomy for Arteriosclerosis of the Lower Extremities, *N. E. J. Med.*, 244:199-204, 1951.

TRENDS IN HOSPITAL NURSING SERVICE IN MAINE

EDITH H. DOANE, R. N., Director of Nursing, Maine General Hospital, Portland, Maine

INTRODUCTION

Rapid developments in the field of hospital care have necessitated continuous changes in the pattern of hospital nursing service. The purpose of this article is to explain the pattern which has evolved to meet present day demands for nursing service in hospitals.

Obviously the aim of nursing education and nursing service is that it meet highest standards of nursing care for each patient consistent with advances in medical science and the ability of the public to meet the costs involved.

We hear much today about nurses who on the one hand are educated above the level of bedside nursing and who on the other hand are unwilling to perform routine duties involved in bedside nursing. First, what is meant by the term "bedside nursing?" If the meaning is limited to those nursing functions required of nurses fifty years ago, the claim that nurses spend relatively little time today in bedside nursing is justified. But suppose it includes the many highly technical functions that are now generally accepted as a routine part of the nurses' responsibility in the total care of the patient. Now, the whole concept of bedside nursing is changed.

REPORT OF GOVERNOR'S COMMITTEE

The report of the Governor's Committee to Study Nursing Resources in Maine published in 1953 has provided interesting and helpful data concerning nursing in this state and at the same time has revealed some startling facts. For example, while most hospitals have been repeatedly faced with nurse shortages, general hospitals in Maine, according to the Committee's Report, are more fortunate than hospitals in most other parts of the country in respect to the supply of professional nurses. This situation, however, was not found to be true with regard to the State's psychiatric and communicable diseases institutions. The Committee emphasized that the low ratio in Maine of non-professional workers to professional nurses engaged in bedside care in our general hospitals indicates an improper distribution and consequently a serious misuse of available professional nursing skills. The Committee noted, however, that the present use of professional personnel can be justified by the fact that hospitals in Maine are handicapped by a critical shortage of properly qualified licensed practical or attendant nurses. The future seems to be brighter in that the first training program

for attendant or practical nurses was initiated in this state late in 1954.

DIVISIONS OF NURSING SERVICES

Should registered nurses today perform all of the routine nursing functions so essential to the total welfare and comfort of patients? If there were enough nurses to do so, would the patient and the public be able to meet the cost of professional salaries involved? Are there not many nursing functions relating to the care and comfort of patients that can be provided under adequate professional supervision by less highly trained and less highly paid workers?

Despite certain inconsistencies which exist at present in some of our hospitals there has developed in Maine as elsewhere an observable trend toward the assignment of nursing functions to essentially three categories of workers:

1. Registered professional nurses.
2. Licensed practical or attendant nurses.
3. Nursing technicians, aides and orderlies.

There is necessity for the nursing profession to inform both their own members and the members of the medical profession as to the preparation, qualifications and inter-relationships of these three groups within the nursing department.

REGISTERED NURSES

The preparation and role of the registered professional nurse is perhaps the one best understood. Standards of professional nursing education have followed closely the advancements in medical science. Basic professional programs in nursing now fall into two broad types: the four to five-year degree program conducted by colleges or universities in cooperation with hospital schools of nursing and the three-year diploma program conducted in their entirety by hospital schools of nursing.

The emphasis in these basic programs is increasingly toward proficiency in technical skills, development of an understanding of the deeper emotional and mental needs of patients, and development of skills in human relations which will qualify the professional nurse to direct and oversee the work of all non-professional workers within the nursing department.

PRACTICAL NURSES

Much confusion exists in Maine concerning the qualifications of the second category, the licensed

Editor's Note: This article has been written in response to a request from the editor.

practical or attendant nurse. In 1945 when the law providing for the licensure of practical nurses came into existence, a two-year waiver permitted individuals to become licensed without formal training and without writing examinations, provided they had the endorsement of doctors and patients with and for whom they worked. Today, approximately 500 of the 523 licensed attendants in Maine are licensed by waiver and have had little or no formal training. Already, at least one hospital in Maine limits employment as licensed practical nurses to those who hold a diploma from a recognized school of practical nursing and are licensed by written examination. Many routine duties and less complex nursing procedures are assigned to these qualified licensed attendants.

NURSING TECHNICIANS, AIDES AND ORDERLIES

The third category, nursing technicians, aides and orderlies, constitutes a group of workers who are on-the-job trained. Hospitals have found it necessary to employ full time qualified instructors to conduct continuous training programs which may vary in length from a few weeks to several months. For example, male technicians in the operating room receive six months training which prepares them to scrub in with the surgical team and to perform other nursing functions. The efficiency of any on-the-job trained worker depends largely upon his capacity to learn and the quality of the training he receives.

"NURSING TEAM"

Registered professional nurses, licensed practical nurses and on-the-job trained technicians and aides now participate in the care of patients and make up what has come to be known as the "nursing team." Clerical duties formerly performed by the nurses are usually assigned to persons who are variously known as floor clerks or secretaries. In those hospitals with schools of nursing, student nurses are included on the nursing team.

CO-OPERATION

The nursing profession recognizes that one of the most vital needs within the hospital today is that of a closer working relationship with the medical staff. The rapid developments in hospital medical care give rise to the misunderstandings and conflicts which may exist between members of the medical and nursing staffs. The result can mean loss of mutual respect and may threaten the smooth team relationships so essential to high quality of patient care.

Nurses are willing and anxious to accept suggestions from the medical profession. Mutual understanding can be achieved only as doctors and nurses plan together for the needs of the patients. One of the most effective means of joint planning and action is through regular meetings of nursing personnel with medical staff committees such as nursing procedures, surgical technic, obstetrical technic and other committees whose activities frequently relate to nursing.

Indoctrination Meeting for New Members

William F. Mahaney, M. D., President of the Maine Medical Association, will be the speaker at the luncheon meeting for new members on Tuesday, June 21, at 12.30 P. M.

Scientific Program

June 20

Speakers scheduled for Monday, June 20, include Donald S. King, M. D., Professor of Thoracic Medicine, Dartmouth Medical School, and Louis Weinstein, M.D., Haynes Department of Infectious Diseases, Massachusetts Memorial Hospitals, Howard B. Sprague, M. D., Brookline, Mass., and Peter W. Bowman, M. D., Superintendent, Pownal State School.

June 21

John L. Madden, M. D., Director, Department of Surgery, St. Clare's Hospital, New York City, and Joseph H. Burchenal, M. D., Professor of Medicine, Sloan-Kettering Division, Cornell University Medical College, will speak Tuesday forenoon, June 21. The program Tuesday afternoon will be arranged by the Maine Medico-Legal Society.

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BEFORE THE MEDICAL EXAMINER ARRIVES

PHILIP W. WHEELER**

INTRODUCTION

Maine law defines the circumstances under which homicide is a crime. The dictates of the law impose important responsibilities on the police and medico-legal authorities.

The police have their responsibilities where it pertains to the environment and the acquisition of non-medical evidence, as well as the apprehension of the killer.

It is the duty of the medical examiner to conduct the investigation where it pertains to the body of the deceased and to ascertain the cause of death.

The prosecutors in the trial of a homicide are concerned with several factors which they know must be proved. It must be established that a certain individual is dead; that death was the result of criminal violence and that it occurred at a certain place and time and under certain circumstances. Unless there is convincing proof of these points, the case against the accused cannot be substantiated.

Society is also concerned. They do not want an accused to go unpunished, nor do they want an innocent person wrongly accused.

MAINE LAW

In Maine the law stipulates that the body of any person who is supposed to have come to his death by criminal violence, or by suicide, or in any suspicious or unusual manner, shall not be moved except under certain defined circumstances, until the arrival of the medical examiner, sheriff, a member of the state police or the county attorney and until photographs or measurements and drawings have been made to record the physical facts relative to the location and position of the body under the supervision of the county attorney, the state police or sheriff, unless the attorney general or the county attorney waive such requirements. However, after photographs or measurements and drawings have been made or have been waived and after the medical examiner has completed his examination as required of him by law, the body may be moved to a convenient place.

FIRST INSPECTION

A major responsibility evolves around the first officer who arrives at the scene of a homicide. If he arrives there before the medical examiner, he should adopt certain well prescribed rules of procedure.

These rules have been suggested by well known experts in the field of homicide investigation.

An important rule is to be conscientious about making and keeping notes. As the time element can be very important in a murder prosecution, his notes should commence with the exact time he was notified, the name of the informant, information received and the manner in which he was notified. He should be alert as he proceeds to the scene and upon his arrival there, make more notes, recording the time of his arrival and the names of any persons present who by necessity must be interviewed. They may be able to identify the victim and also the assailant.

The officer has certain specific duties which require his attention. The order of sequence as he goes about his duties may vary according to the circumstances and any previous training or instruction he has received. He should arrange for the county attorney or sheriff to be notified of the finding of the body of the victim, who in turn, by law, shall arrange for the attendance of the most readily accessible medical examiner. He should immediately "freeze the scene," thereby protecting and preserving the scene and evidence, with nothing disturbed, so that on the arrival of the medical examiner and other investigating officials with whatever laboratory assistance is available, a careful and systematic examination can be made of the scene in its original condition. The victim is a necessary and valuable item of evidence. Although the dead do not speak, valuable evidence may be found in, on or around the body. The laboratory and technical experts are powerless to give practical assistance unless the physical evidence which they are to process has been carefully collected, labeled and preserved.

FIRST AID

The officer may be confronted with the possibility that the reported victim is still alive. If so, he has the responsibility of saving the victim's life, if possible. If there is any question about it, he should proceed as though the victim were not dead and do what he can to save the victim's life. This may require that the victim be removed to a hospital.

In the event the victim will be or has been removed to a hospital, the officer may, by his foresight and initiative, preserve priceless evidence. This will add to the problem of the officer. He has not only the scene to protect, but additional duties in connection with the removal, transportation and arranging for hospital personnel to cooperate in carrying out certain important requests.

** Special Investigator, Department of Attorney General, Maine.



Scene of an actual homicide in its original condition with nothing disturbed before the medical examiner arrived and until photographs and measurements had been taken.

HOSPITALIZATION

Caution should be used if the victim is to be removed to a hospital. It often happens in cases of injury from a firearm, the projectile penetrates through the body and is found adhering to outer clothing, or in case of head injuries may be found protruding through the scalp, imbedded in blood and hair. Fatal bullets have been found on ambulance stretchers after the body has been transported.

Medical personnel at the hospital, as they endeavor to save the life of the victim, should be requested to cooperate in carrying out several important requests, in connection with injuries and clothing of the victim. If the injury requires cleaning, ask them to note powder burns, residue, tattooing, smudging and the size, number, position and direction of stab wounds. If tissue is removed around the wound of entrance, then request the surgeon to preserve it, if possible, by refrigeration rather than by a preservative. If a bullet is to be removed, care should be used so that it will not be mutilated by instruments. There may be vital evidence on the hands of the victim, such as powder,

hair and blood. Flesh scratched from the attacker may be found under the fingernails. Evidence may be lost if the patient's hands are washed.

It is generally necessary to remove clothing from the patient. It is sometimes cut to facilitate the undressing of a severely injured person. Request that scissor or knife blade not be inserted in an already existing hole. In other words, make a completely new clean cut. Seams may be opened or straight cuts made in order to avoid defects resulting from weapons.

CARE OF CLOTHING

Care should be observed in recovering and keeping the continuity of the clothing and other evidential material. The officer who is to receive this material should have it identified by the person who removed it from the victim and give him a receipt for it. Wet or blood soaked articles of clothing should be kept separated and then hung up in a warm room and dried. This operation should be done as soon as possible in order to prevent the clothes from molding and the blood from putrifying. Blood dried quickly in this

way may later be blood-typed. After the articles are dry, the identifying marks may be placed on them and they should be appropriately tagged.

In the event the patient dies as the result of the aforesaid causes, his body should be held for the medical examiner.

CARE OF SURROUNDINGS

The victim of a homicide may be found in a building or outdoors. If the body is in a building it may be in danger of destruction by fire. If it is outdoors it may be in danger of being destroyed by traffic or becoming lost in a body of water. If the body is in danger of being destroyed, damaged or lost, the officer should take steps toward its preservation or retention, pending the arrival of the medical examiner, sheriff, a member of the state police or the county attorney. First, if practicable, mark the exact location and position of the body.

If the body is outside and is exposed to rain or snow and if there are blood stains or footprints that are perfectly obvious, some sort of covering should be put over them to protect them.

A homicide may have occurred in one place and then the victim may have been removed to another place for the purpose of concealing the body, thereby confusing and impeding the investigation.

CARE OF PEOPLE

The officer, as he attends to his duties—guarding and seeing that no one enters the premises or walks on the scene—may be confronted with people who have no business there, because they have no part in the investigation. He should show courtesy and discretion to any relative who is at the scene or arrives there. At the same time he must refrain from sending away people who may be important witnesses. He should request possible witnesses to remain in the immediate vicinity that they may be available for further questioning. However, curiosity seekers should be asked to leave the scene.

NOTES ESSENTIAL

He should make use of his notebook, making a note of anyone who can identify the victim. He should not take anything for granted, but should write it down. The medical examiner and other investigating officers will make notes when they arrive. That makes no difference. He should not depend on their notes. He should stand at a good point of vantage and write down what he sees, including a description of the premises and of the victim, the clothing, the position of the body, the head, arms, legs and any obvious wounds or bloodstains. If a weapon is found which may have caused the fatality, it should not be disturbed (unless there is a very good reason) until it is recovered in a scientific manner after the medical ex-

aminer and other officials arrive and then only after measurements and photographs have been taken.

In the event the victim is in a bathtub and water is in the tub, make note of the height of the water, as it may recede around a loose fitting plug and would not actually represent the scene when the officials arrive later. Also observe if there is any water dripping or running into the tub. The medical examiner will want to know exactly what the situation was when the victim was found.

VICTIM OF HANGING

A death from hanging is usually suicide. It can be accidental and may be homicidal. All the circumstances must be carefully investigated. The victim may appear to be a suicide, yet he may have been hanged after death or hanged alive while in a stupor or unconscious from the effects of alcohol or some other poison. The body found hanging and obviously dead should not be cut down until the medical examiner arrives and photographs and measurements have been taken. Care should be taken to preserve any knots when the ligature is severed. The material from which the body is suspended must also be protected until carefully examined.

VICTIM OF POISONING

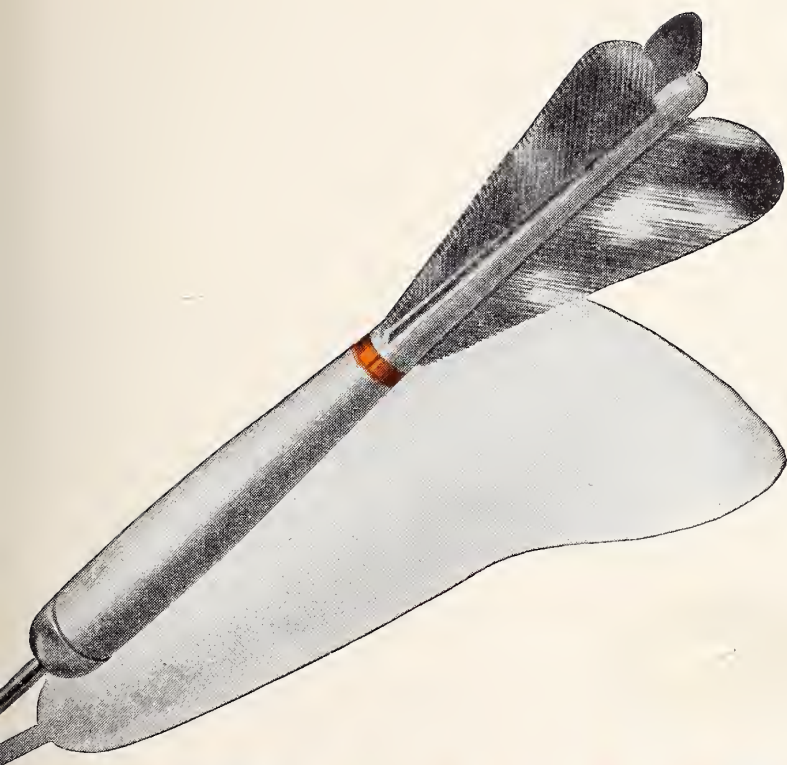
In a case where poisoning is suspected, it will probably require considerable investigating by the police and medical authorities. It must be proved that the victim actually died of the poison. It places that burden on the pathologist, chemist or medical examiner to show beyond any doubt that the poison was the cause of death. It must also be proved that the poison was not taken accidentally or self administered. When the officer arrives at the scene he should be on the alert for any material which may have caused the death, and any receptacle used in administering the poison. Any vomitus or feces should be saved, as well as any clothing or bedding on which it is found. Medicine bottles, pills, powders, food, beverages and garbage which may have contained the poison, will have to be protected until thoroughly examined.

ROLE OF MEDICAL EXAMINER

Upon the arrival of the medical examiner at any of the scenes, he is required by law to take charge of the body and make an examination. He is required, before the body is removed, to reduce or cause to be reduced in writing, a description, location and position of the body and any and all facts that may be deemed important in determining the cause of death. This is where the first officer who arrived at the scene and the person who found the body should be able to contribute much, as the major investigation gets under way with the medical examiner and other investigating personnel. The officer should be able to estab-

The image features a textured, grainy background with a series of concentric, overlapping circles in shades of dark grey and black. The circles are centered towards the right side of the frame. In the lower right quadrant, the letters 'ACH' are prominently displayed in a bold, orange, sans-serif font. The letters have a thick black outline, making them stand out against the dark background.

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Pharyngitis
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Gonorrhea
Bacillary Dysentery
Pneumonia with or without Bacteremia
Bronchopulmonary Infection
Acute Pyelonephritis
Chronic Pyelonephritis
Mixed Bacterial Infections
Soft Tissue Infections
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Clinical research has proved ACHROMYCIN to be effective against more than a score of different infections, including those caused by Gram-positive and Gram-negative bacteria, rickettsia, certain viruses and protozoa.

In addition to its true broad-spectrum activity, ACHROMYCIN provides more rapid diffusion than certain other antibiotics, prompt control of infection, and the distinct advantage of being well tolerated by most persons, young and old alike.

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lish whether the body is in its original position, or if it has been moved for any reason, such as the rendering of first aid.

The medical examiner will inquire if the victim was dead when discovered. He will ascertain the name of any physician who may have treated or moved the deceased or pronounced him dead. He will inquire whether there has been any clothing disarranged and if any towels or bandages were used on the wounds.

The medical examiner and other investigators will inquire if any persons witnessed the crime, if the officer talked with them, and if they have been detained for further questioning. The officials will want to know the time the officer was notified and the identity of the informant, what was said to the officer, the time of the officer's arrival, who was at the scene, what information was obtained, and the identity of the victim. If the body was in a building they will inquire whether the outer door was open or closed when the officer arrived. If the door was closed, was it locked or unlocked and how was entrance made? Were there any lights on or later turned on and, if so which ones were they? What was the position of windows? Were they open or closed? Were they locked or unlocked? If any of the windows were open, did the officer close them and if they were closed did he open any of them? The same questions will apply to window shades and doors. In other words was the scene exactly in the same condition as the officer found it, without the addition of cigarette and cigar butts, burned matches, flash bulbs or any other matter foreign to the scene?

There is no fault more disastrous than the irrespon-

sible searching for evidence by either police or medical authorities. The police, if they disturb the body prior to a view by the medical examiner, may destroy evidence relating to the cause, manner and time of death. The medical examiner, if he devotes his attention exclusively to the body without regard to non-medical evidence, may destroy fingerprints which would have been invaluable in the apprehension of the suspect.

AUTOPSY RECORDS

The medical examiner may see significant details which may be revealed as he studies the body at the scene. Regardless of what the collateral evidence may be, the external appearance of a dead body cannot be accepted as conclusive evidence to the cause of death. It is necessary that a complete and a competent autopsy be performed. This autopsy can be ordered by the attorney general or the county attorney.

COOPERATION ESSENTIAL

As the major investigation gets underway, it is obvious that the medical examination must be integrated with the police investigation. There is no absolute line of demarcation between their respective responsibilities. The medical examiner and other investigating officials, including whatever laboratory assistance is available, must cooperate in formulating a plan of procedure best suited in conducting their investigation and examination at the scene.

The officer who keeps the scene of a homicide intact and in its original condition, with nothing disturbed before the medical examiner and other investigating officials arrive should be congratulated.

Clam Bake

At the request of many of our members, who were present at the Clam Bake in 1954, there will be a "repeat performance" on Monday, June 20, at 6.30 P. M.

Golf Tournament

Francis A. Winchenbach, M. D., of Bath, will again take charge of arrangements for the Golf Tournament.

Official Program

The "Official Program" will be published in the June issue of the JOURNAL and a copy sent to each member of the Association. In the meantime, check the pages of the JOURNAL for additional notes and your mail for news of interest regarding this meeting.

J. ROBERT DOWNING, M. D.,
Chairman—Program Committee.

The Journal of the Maine Medical Association

THOMAS A. FOSTER, M. D., Portland, Editor

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Membership Privileges and Responsibilities

Election to a County Medical Society admits a doctor to all the privileges of the County Society and of the State Association. Applicants must fulfill certain requirements; medical degree from an accredited medical school, registration by the State Board of Licensure, residence in the county for a specified length of time and a reputation for ethical practices and a report for good moral conduct. The above stated requirements were written into the Constitutions of the county societies by good and wise men, not by frivolous or foolish ones. They were written by men who valued the distinction and fellowship inherent in established and honorable medical societies. They cherished the privileges enjoyed by their colleagues and they accepted the responsibilities which the privileges entailed.

One of the responsibilities is attendance at meetings; another, participation in the programs; and still another—financial support. Year after year the County Societies stand as the bulwarks for American Medicine. Year after year, they are required to give assistance to many community projects. In order to keep active and to make a satisfactory record they have to have money. Now is the time when members hear from the County Secretaries about the matter of annual dues. And now is the time for the members to sit right down, take pen firmly in hand and write out a check for 1955 State and County dues. If your County Secretary hasn't notified you that "this is the time"—we suggest that you call him and ask for a statement.

Nursing and Nurses

The General Public, in sickness and in health, has a lively interest and a kindly regard for the nursing profession. And they share with the professional personnel of the medical services a real concern for the maintenance of high standards, equitable distribution, and fair rewards. But they are perplexed at times in trying to understand the regulations and policies of the nursing profession.

A presentation of some facets of the many sided nursing situation, prepared by Miss Edith H. Doane, R. N., Director of Nursing, Maine General Hospital, appears this month in the JOURNAL. Miss Doane upon the invitation of the Editor confined her essay to the "Trends in Hospital Nursing Service in Maine." However, in the introduction she makes the following statement, "The Report of the Governor's

Committee to Study Nursing Resources in Maine published in 1953 has provided interesting and helpful data concerning nursing in this state and at the same time has revealed some startling facts." We think that Miss Doane has developed her topic clearly and in fair and temperate language.

And, while on the subject of nursing needs and nursing resources we bespeak your interest in the Report of the Governor's Committee which was appointed in 1951 at the behest of the Maine Hospital Association and the Maine State Nurses' Association. The committee, about a score of representatives from different segments of the social and professional fabric of the state, have had published a short, concise, 16-page, aptly illustrated booklet. Under the guidance of Mrs. Velma Haley, Chairman, they held

many meetings, thoughtful meetings and made eleven recommendations under two headings; (1) Nursing Education, (2) Nursing Service. The Maine Medical Association allocated funds to share in the expense of publishing and distributing the report. The county society secretaries have been furnished with copies with a request to distribute them to the society members. We suggest that you get your copy, read it and decide what you can do to implement the recommendations. We believe that a good beginning has been made. A new class for practical nurses is now under

instruction at the Aroostook State Teachers College. A second class has enrolled to commence the course in April. Support from the Medical Association would strengthen the project.

At the present time, the good people of Aroostook have expressed their approval of the program and have entertained the members of the first class at a tea-party in Presque Isle. The people in the southern part of the state, we believe, would support the program also, and would extend a cordial welcome to the young ladies embarked on the course.

Dollars for Health

The medical profession, day after day, week after week, yes year after year, is confronted with problems, a plenty; some new ones and many of the same old ones. Recent reports issued from Augusta during our biennial legislative sessions have focussed attention on two of the old ones. We refer at this time especially to the conditions existing in our institutions for the mentally backward at Pownal and the unfortunate mentally unsound people at Augusta.

Dr. Sleeper supported by the report of the Legislative Research Committee, has petitioned the legislature for funds to provide adequate accommodations and personnel to take care of the patients at one of the largest of our State institutions. Overcrowding of patients is admitted, lack of adequate staff is admitted and yet the Legislative Bodies evince little inclination to ease the critical situation and to plan for future improvements.

Dr. Bowman at Pownal, has with equally sound support requested funds for needed improvements for the "Home" at Pownal. Here, right here in Maine, where we live, breathe and have our being are two large state hospitals which need help.

The superintendents of these institutions, sincere, vocal and devoted as they may be, speaking and pleading as single official agents find themselves up against a courteous but a tightly prudent and cautious body of law-makers, who are under heavy pressure sometimes to use the tax dollar for purposes other than state hospitals.

We would like to see the Maine Medical Association give firm backing to the appropriations requested for the above mentioned institutions. We, as practicing physicians, depend on them to help us in the care of the mentally backward and the mentally unbalanced. We approve of currently accepted standards of care. If we agree that conditions are substandard and in some instances bordering on the hazardous, should we not make our position clear and endeavor to have our opinions respected? If an epidemic breaks out in one or the other of these places, if a disaster occurs with tragic results, our good intentions will bring us small comfort and perhaps big embarrassment. Now is an appropriate time to speak out and an appropriate time to call for action.

More Restrictions

During the rather carefree and quite happy days of the Gay Nineties when gentlemen wore vests, solid gold watch chains with heavy charms suspended therefrom, hearty eating at a good table was an enjoyable custom. Prosperous and active citizens of the community carried their 235 or 260 pounds of solid weight around the town with considerable aplomb. About the same time Osler was quoted as saying that "more men die from the platter than from the sword." Certainly deaths from acute indigestion ended many a promising career. Putting two and two together the public began to suspect that overeating and overweight induced serious disturbances to the human body. And with the knowledge acquired through studies in metabolism, physiology of digestion and blood chemistry, an era of con-

trolled eating and careful dieting dawned upon the American scene. Not many will deny that judicious dieting and sensible habits of eating serve to prevent health disasters and to keep the body in good balance.

We have learned and unlearned many things about the effect of foods upon the growing child and the fathers and mothers. At present we are facing a problem embracing the effect of smogs, gas engine exhausts and more acutely tobacco smoke, on all of us. The careful work done by Graham, Wynder, Cornfield and others in this country, together with the material published by Doll and Hill in Great Britain, command our critical attention to the subject of noxious inhalants. We have had hardly enough time and experience to evaluate the contributions presented to us along these lines. And now we are confronted

with essays on the effect of tobacco and alcohol on the cardio-vascular system.

Two leading articles in the February 12th issue of *The Journal of the A. M. A.* offer us more food for thought about our habits. Russek, Zohman and Dorset from their observations, both clinical and experimental, tell us about the effects of tobacco and whiskey on the cardio-vascular system, and Buff from Charleston, West Virginia, gives us some results of his studies of the effect of cigarette smoking on the normal person. New recordings with the ballistocardiograph show a tendency for the graphic pattern to deteriorate after cigarette smoking. This is interpreted as indicating some sort of myocardial damage. Buff, stimulated by the paper of Hammond

and Horn read at the San Francisco meeting of the A. M. A., entitled "The Relationship Between Human Smoking Habits and Death Rates," reports on the results of testing 400 persons with the ballistocardiographic tracings before and after smoking. And he says, "I do not know in how many of the patients who have abnormal responses to cigarette smoking coronary artery disease will eventually develop, but I do feel that in view of the evidence that is now present it is highly desirable that these patients stop using tobacco in any form."

The doctor with all this evidence, new and old, bears a heavy responsibility when he is called upon to talk over smoking, drinking and eating habits with his patients who have cardiovascular disorders.

POLIO VACCINATION PLANS FOR 1955

Last year some 440,000 children in the United States, including about 60% of the second graders in the Bangor and Portland areas, received three immunizing doses of the poliomyelitis vaccine prepared by Dr. Jonas Salk of the University of Pittsburgh. 210,000 children received placebo injections and over 1,000,000 children acted as additional controls. 217 areas in 44 states participated in this vaccine field trial. Following the completion of the immunizations, an elaborate system of reporting and sample collecting provided raw information to the statistical evaluation center under Dr. Francis at the University of Michigan. Dr. Francis' report on the field trial experience, and the evaluation of the safety and efficacy of the vaccine is due to be made public in April. On the basis of this report, the Salk vaccine either will or will not be licensed for sale and distribution through normal channels.

The series of three immunizing doses requires a minimum of five weeks for administration. The schools are obviously the most practical focus for any large scale immunization program for children, and schools close early in June. With these time factors in mind, it is quite apparent that, should the Francis report be favorable, no widespread use of the vaccine this year would be possible without some very extensive tentative planning in advance of the report. Naturally, any such plans for the use of the vaccine would terminate immediately if the Francis report is unfavorable, but the risk of wasted planning seems justifiable when compared to the possible gains.

Manufacturers could hardly be expected to retain their staffs, and continue to prepare vaccine in the face of the risk of an unfavorable report from the Michigan Evaluation Center. Therefore, without some type of guarantee, no stock pile of vaccine would be available for this year, should Dr. Francis' report be favorable. To eliminate such a situation,

the National Foundation for Infantile Paralysis (NFIP) contracted to purchase, and thus assume the risk, all vaccine that might be manufactured during this study period. As a result, the NFIP now has a stock pile sufficient to immunize 9,000,000 children if Dr. Francis' report in April is a favorable one. The NFIP will release this material only for the immunization of all first and second grade school children in the state plus the unimmunized third and fourth graders in last year's test areas. Thus, there is free vaccine available for about 40,000 Maine children. Vaccine will also be available for the remaining children through normal commercial and professional channels.

The major problem at the moment is to prepare the plans by which a maximum of 40,000 children over the entire state may receive their first vaccine doses within a time interval of one to two weeks.

Essentially, any plan must divide the state into what might be called operational units which may be school unions, groups of towns, or individual towns or cities. Then, the personnel, supplies, equipment, schedules, and plans must be developed for each such unit. In so far as possible, planning will be on a local level. Contracting for services, payment for services, the purchase of expendable supplies, and similar expenditures, will have to be arranged locally. Immunization will, of course, be entirely voluntary, and will be done only if a signed parental consent slip is received for each child. Educational material will have to be distributed, local planning completed, consent slips returned, and immunization rosters prepared before the release of Dr. Francis' report, which probably means prior to April 15th. With this date in mind, first doses could be given the third or fourth week of April, second doses the first week in May, and third doses the first week in June. So far as is

Continued on page 89

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COUNTY SOCIETY NOTES

Aroostook

Clyde I. Swett, M. D., of Island Falls, was elected a member of the executive committee of the Federation of State Medical Boards of the United States, at a federation meeting in Chicago, February 8, 1955.

Cumberland

January 28, 1955

The annual dinner meeting of the Cumberland County Medical Society was held at the Maine General Hospital in Portland on Friday, January 28.

The following officers were elected for the coming year:

President, Francis M. Dooley, M. D., Portland.

Vice President, Sidney R. Branson, M. D., South Windham.

Secretary-Treasurer, Stanley E. Herrick, Jr., M. D., Portland.

Delegates to the Maine Medical Association (two years), Daniel F. Hanley, M. D., Brunswick; Philip P. Thompson, Jr., M. D., Portland; Albert Aranson, M. D., Portland; and Alvin A. Morrison, M. D., Portland. Alternates (two years), Benjamin Zolov, M. D., Portland; Ralph A. Getchell, M. D., Portland; Norman E. Dyhrberg, M. D., Cumberland Mills; and William C. Burrage, M. D., Portland. (Delegates, one year, Henry M. Tabachnick, M. D., Ronald A. Bettie, M. D., William C. Burrage, M. D., Edward G. Asherman, M. D. Alternates, one year, Eugene E. McCann, M. D., Albert W. Moulton, Jr., M. D., Gisela K. Davidson, M. D., Harvey B. Ansell, M. D.)

It was voted that the President appoint an Assistant Secretary-Treasurer pro-tem.

Franklin

February 14, 1955

A regular meeting of the Franklin County Medical Society was held in Farmington on Monday, February 14. A panel discussion on the Care of the Diabetic was conducted by Francis A. Spellman, M. D., Togus; Stanley B. Covert, M. D., Kingfield; and Maynard B. Colley, M. D., Wilton.

PAUL E. FLOYD, M. D.,
Secretary.

Hancock

February 9, 1955

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, on Wednesday, February 9. There were thirteen members and one guest present. The meeting was opened by the President, Dwight Cameron, M. D., of Northeast Harbor. Raymond D. Higgins, M. D., of Blue Hill, was elected to membership.

The speaker of the evening was Jay K. Osler, M. D., of Bangor, who gave a very interesting talk on Ophthalmoscopy.

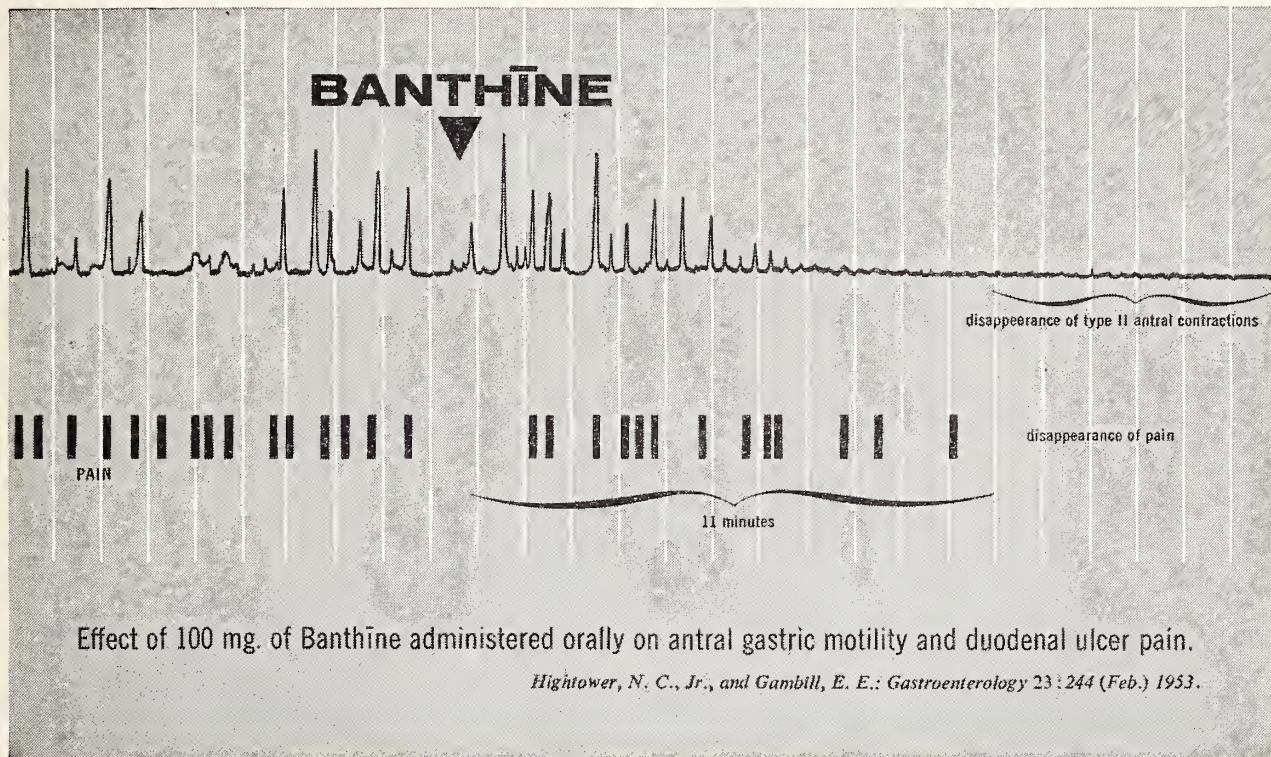
ARTHUR M. JOOST, JR., M. D.,
Secretary.

Kennebec

February 17, 1955

Samuel R. Meaker, M. D., Professor Emeritus of Gynecology at the Boston University School of Medicine, was guest speaker at a meeting of the Kennebec County Medical Society on February 17 at the Augusta House, Augusta. Dr. Meaker's subject was Endocrine Therapy in Gynecology.

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A recent evaluation of anticholinergic therapy in peptic ulcer emphasizes the fact that now the profession has at its disposal agents that are "effective in reducing both secretory and motor activity of the stomach."

The effect on motor activity is generally more pronounced and less variable than on secretion; pain relief is usually prompt; a high degree of effectiveness is noted in ambulatory ulcer patients.

Ruffin, J. M.; Texer, E. C., Jr.; Carter, D. D., and Baylin, G. J.: J.A.M.A. 153:1159 (Nov. 28) 1953.

With its proved anticholinergic effectiveness, Banthine has been found extremely useful in the medical management of active peptic ulcer, whether duodenal, gastric or marginal.

The immediate increase in subjective well-being and the simplicity of the Banthine regimen assures patient cooperation. The recommended initial therapeutic dose is 50 or 100 mg. (one or two tablets) every six hours around the clock, with subsequent individual adjustment. The usual measures of diet regulation, rest and relaxation should be followed.

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Banthine bromide (brand of methantheline bromide) is supplied in scored tablets of 50 mg. and in ampuls of 50 mg. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association. G. D. Searle & Co., Research in the Service of Medicine.

SEARLE

Penobscot February 15, 1955

Benjamin Spector, M. D., Professor of Anatomy, Tufts College Medical School, presented a paper on Bioanatomy of Abdominal Pain, at a meeting of the Penobscot County Medical Society on Tuesday, February 15, at the Bangor House, Bangor.

Piscataquis January 13, 1955

A regular meeting of the Piscataquis County Medical Society was held at the Pleasant River Hotel, Brownville Junction, on January 13.

The meeting was called to order by the president, Norman H. Nickerson, M. D., of Greenville. Charles H. Lightbody, M. D., and James H. Johnson, Jr., M. D., were elected to membership.

Armand Albert, M. D., of Van Buren, Councilor for the District, was present and spoke on matters of interest to the Society in general and to individual members in particular.

Three most interesting papers were presented. Robert C. MacDuffee, M. D., of Monson, made an intensive study at the Army Medical Service Graduate School in the Walter Reed Medical Hospital while in the Service. His paper entitled Decrease in Liver Catalase by Hyaluronidase, set forth in minute detail the thoroughness of a two weeks' study.

James H. Johnson, Jr., M. D., of Milo, related some of his experiences in the use of super-voltage X-ray in diagnosis and treatment. New methods of positioning and penetration control were outstanding.

Charles H. Lightbody, M. D., of Guilford, was at the City Hospital in Worcester, Massachusetts, at the time of the hurricane. His portrayal of the Medical and Surgical aspects of such a disaster was deeply interesting. The overall picture of this catastrophe and its sequel is a most emphatic lesson in the necessity for and value of preparedness.

C. N. STANHOPE, M. D.,
Secretary.

New Members Hancock

Raymond D. Higgins, M. D., Blue Hill.

Knox

Parker Heath, Jr., M. D., 22 White Street, Rockland.

Penobscot

Elsa Shapira, M. D., 50 Shirley Street, Old Town.

Piscataquis

James H. Johnson, Jr., M. D., Guilford.

Charles H. Lightbody, M. D., Milo.

Deceased Cumberland

Francis J. Welch, M. D., Portland, February 10, 1955.

COMING MEETINGS

County Medical Societies

KNOX COUNTY—April 12, 1955, at the Copper Kettle, Rockland, Maine, at 6.30 P. M.

Speakers: Sgt. Parker Hennessey of the Criminal Bureau of Investigation in Augusta, supported by a panel consisting of Irving I. Goodof, M. D., Pathologist, Thayer Hospital, Waterville; Curtis Payson, Esq., Knox County Attorney; and Mr. Bernard Thompson, Chief of the Rockland Police Force.

Subject: Criminal Negligence of Physicians with particular regard to the execution of the certificate of cause of death and the importance of post-mortem examination in ascertaining masked causes.

American Medical Association: George F. Lull, M. D., 535 North Dearborn Street, Chicago 10, Illinois, Secretary.

1955 Annual Meeting, Atlantic City, New Jersey, June 6-10.

1955 Clinical Meeting, Boston, Massachusetts, November 29-December 2.

Maine Medical Association: Esther M. Kennard, 142 High Street, Portland 3, Maine, Secretary.

1955 Interim Meeting, House of Delegates, Bangor, Maine, April 16.

1955 Annual Session, The Samoset, Rockland, Maine, June 19, 20, 21.

Connecticut State Medical Society: Creighton Barker, M. D., Executive Secretary, 160 St. Ronan St., New Haven, Connecticut.

1955 Annual Meeting, Stratford, Conn., April 26-28.

Massachusetts Medical Society: Robert W. Buck, M. D., Secretary, 22 The Fenway, Boston 15, Massachusetts.

1955 Annual Meeting, Boston, Mass., May 17-19.

Rhode Island Medical Society: Thomas Perry, Jr., M. D., Secretary, 106 Francis St., Providence 3, Rhode Island.

1955 Annual Meeting, Providence, R. I., May 4-5.

NEWS AND NOTES

American Congress of Physical Medicine and Rehabilitation Annual Essay Award

To stimulate interest in the field of physical medicine and rehabilitation, the American Congress of Physical Medicine and Rehabilitation will award annually a prize for an essay on any subject relating to physical medicine and rehabilitation. The contest, while open to anyone, is primarily directed to medical students, internes, residents, graduate students in the pre-clinical sciences and graduate students in physical medicine and rehabilitation. Manuscripts must be in not later than June 1, 1955.

For Rules and Regulations write to: American Congress of Physical Medicine and Rehabilitation, 30 N. Michigan Ave., Chicago 2, Illinois.

American Board of Obstetrics and Gynecology

The next scheduled Examinations (Part II) oral and clinical for all candidates will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 12, through May 20, 1955. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Secretary: Robert L. Faulkner, M. D., 2105 Adelbert Road, Cleveland 6, Ohio.

Allergists to Hold Annual Meeting

The Eleventh Annual Congress and Graduate Instructional Course in Allergy of The American College of Allergists will be held at the Morrison Hotel in Chicago, Illinois, April 25 through April 30, 1955. The first three days will be devoted to 40 hours of intensive teaching of the basic facts in this field of medicine. These courses will be conducted by 45 specialists well known for their teaching ability and mostly chosen from the medical college faculties throughout the nation.

Any member in good standing of his local county medical society is cordially invited to attend. Further details and the program may be obtained by writing, American College of Allergists, LaSalle Medical Building, Minneapolis 2, Minnesota.

Accommodations Still Available for A. M. A. European Tours

Accommodations are still available for the four-week air tours of Europe which are planned to precede and follow the annual meeting at Atlantic City, June 6-10. Four tours are offered which include a comprehensive itinerary of capital cities and renowned points of interest combined with medical lectures by eminent European medical authorities.

Tour-goers will visit such storied places as Windsor Castle, Westminster Abbey, the Colosseum and Pantheon, Napoleon's Tomb, the Palace of Versailles, the Louvre, will glide through Venice on gondolas and travel down the Rhine on a German steamer. Cities to be visited will include London, Amsterdam, The Hague, Coblenz, Frankfurt, Zurich, Lucerne, Milan, Venice, Florence, Rome, Genoa, Monte Carlo, Nice and Paris.

Departures from New York are scheduled for May 6, May 8, June 11, and June 13. The cost of the tour is only \$1,598. This covers round-trip transportation, all en route meals and hotel accommodations. The tours have been arranged by United Air Lines and Thos. Cook & Sons under the sponsorship of the A. M. A.

Requests for booking or additional information should be addressed to American Medical Association, Pre- and Post-Convention Tours, 5959 South Cicero Avenue, Chicago 38, Ill. A deposit of \$100 is required at time of booking. Checks should be made out to United Air Lines for both the deposit and final payment, which is due April 8.

Physician Pilots

Some time ago several physicians simultaneously conceived the idea of forming a national society of flying physicians. A scientific and social program can be arranged at Atlantic City if enough interest is shown.

The immediate objectives are: compilation of a complete list of physician pilots; appointment of temporary local area chairmen; the collection of ideas and suggestions; and encourage physicians to fly in to the AMA Meeting at Atlantic City, June 6-10, 1955.

Will physician pilots who are interested please send their names, plane flown and landing field to the local chairman of their area, or, if not known, to H. D. Vickers, M. D., 25 Jackson Street, Little Falls, New York, temporary chairman.

Medical Motion Pictures

The Committee on Medical Motion Pictures of the A. M. A. announces that Booklet #6 of Reviews of Medical Motion Pictures is now ready for distribution. This booklet contains 64 critical reviews of medical and health films which were published in THE JOURNAL during 1954. A copy has been sent to the secretary of each state medical society and they are available to county medical societies from the Committee on Medical Motion Pictures. Other requests should be sent to the Order Department, American Medical Association, 535 North Dearborn Street, Chicago 10. The price of individual booklets is 25 cents each or the complete set of six booklets including all reviews published since 1946 is available for \$1.00.

Trudeau School of Tuberculosis

Despite the closing of the clinical facilities of the Trudeau Sanatorium, the forty-first session of the Trudeau School of Tuberculosis will begin Wednesday, June 1st, and continue to June 29, 1955.

The staff, facilities and skills of the Trudeau organization laboratories, of the various sanatoria in the Saranac Lake area, and of the practicing tuberculosis specialists of Saranac Lake will be called upon as in the past to present the program.

The course will cover all aspects of pulmonary tuberculosis and also certain phases of other chronic chest diseases, including those of occupational origin.

Registrations will be limited and it is suggested that those planning to attend make early application for enrollment.

The tuition is \$100, payable to the Trudeau School on or before the opening date, June 1, 1955.

A few scholarships are available for those individuals who can qualify.

The Trudeau School of Tuberculosis has been approved for training of veterans under Public Laws and any applicant desiring to obtain veteran's benefits should clear his registration with the Veterans Administration before the session begins.

Applications and more detailed information may be obtained from: Secretary, Trudeau School of Tuberculosis, Box 200, Trudeau, New York.

Continued on page 88

TUBERCULOSIS ABSTRACTS*

Issued by the National Tuberculosis Association

Changing Concepts in the Treatment of Tuberculosis

By Gustaf A. Hedberg, M. D., The Medical Clinics of North America, July, 1954.

Before 1947 the treatment of pulmonary tuberculosis, based on rest and support to the patient, was well standardized. In institutions emphasis was placed on strict rest in bed and actual physical immobilization until the lesion had shown maximal improvement and signs of stabilizing. Usually the patient had reached an exercise level of four or more hours before discharge.

In addition to the basic treatment of rest, collapse measures were directed toward the pulmonary disease. Pneumothorax was the most popular procedure, though serious complications such as effusion and empyema sometimes followed. Later there was a trend toward "primary thoracoplasties" wherein permanent collapse was induced by rib resection. Pneumoperitoneum became popular because it was considered harmless and tended to keep the patient in the sanatorium. There was always debate as to the value of phrenic-nerve interruptions. Resection for pulmonary tuberculosis was rare because of the operative danger as well as the danger of spread to the opposite lung.

Since the advent of antimicrobial drugs and the coincidental improvement in anesthesia and pulmonary surgery, tuberculosis therapy has been in continuous change. In 1947 when streptomycin became available the usual dose was 0.5 gram of the antibiotic given every six hours. Under this treatment there were frequent toxic complications, mainly vestibular damage and deafness. It was soon found that streptomycin and dihydrostreptomycin were not bactericidal agents but bacteriostatic. In many patients the surviving tubercle bacilli became resistant to the drug. As a result there was a tendency to introduce thoracoplasty or resection very early in the treatment. Reactivation and spread to other parts of the body were common. Many forgot that tuberculosis is a systemic disease that cannot be controlled by the excision or collapse of diseased parts alone. In 1949 para-aminosalicylic acid (PAS) became available. Streptomycin and PAS combined not only had increased therapeutic effect but tended to delay the emergence of resistant strains of tubercle bacilli.

Long-term effective chemotherapy made it possible to treat patients until maximal resolution had occurred, with resection of residual cavitary and, at times, other infected areas. The number of treatment failures as a result of earlier therapy was considerable. Some of these were salvaged when, in 1951, viomycin and, in 1952, isoniazid became available.

The treatment of tuberculosis has not yet stabilized except possibly in regard to the emphasis of long-term chemotherapy. Indications for resection are becoming more conservative.

Collapse therapy has been almost abandoned in the Nopeming Sanatorium (Minnesota). During the past two years the principle of strict rest in bed has also been abandoned except for toxic patients and those under orthopedic treatment. All are allowed a moderate amount of exercise including full bathroom privileges. The disability from physical immobilization has been reduced but it is more difficult to convince the patient of the necessity for sanatorium treatment. Much more time must be spent in the individual education of the patient regarding the problems of his disease as it relates to himself and to his family and community. With chemotherapy, however, it has been possible to shorten the hospital stay for the intelligent and cooperative patient by a program of postsanatorium outpatient treatment with drugs, given under the supervision of the patient's private physician. The patient returns to the sanatorium periodically for intensive laboratory studies including the culture of gastric specimens.

Three months after the end of treatment the patient is again hospitalized for such studies.

The factors taken into consideration in surgical treatment are the presence of residual cavitation and localized extensive nodular disease. Body section radiography is of great value. Operation is delayed until the patient is not excreting tubercle bacilli. If resection is performed the patient is kept on modified exercise for approximately two months, after which exercise is increased gradually. After discharge the patient continues his chemotherapy for a year or more depending upon residual known disease. This institution has become more conservative in recommending surgical treatment, since many resected specimens fail to demonstrate activity of the tuberculosis. Since 1951 only one patient in Nopeming Sanatorium who has taken a minimum of 100 grams of streptomycin with PAS and who has undergone resection has shown evidence of reactivation. Reactivation has occurred in a few patients treated by medical means alone.

It is impossible to evaluate the results of treatment at this time although the reactivation rate after discharge has definitely decreased. Previous to the advent of chemotherapy the reactivation rate among patients discharged as well or improved was approximately 33 per cent over a five-year period.

One might ask why sanatorium care is necessary with present definitive treatment. Why not start a patient on antimicrobial therapy and hospitalize him only for periodic intensive study and during surgical treatment? There are two main reasons for hospitalization during the active period of a person's tuberculosis.

First, patients with active tuberculosis are an actual or potential public health menace, even with intensive drug treatment. Second, it has not been proved that drugs alone "cure" tuberculosis; rest and support promote the patient's innate ability to heal his disease. Further, all the drugs in use have toxic potentialities and some are difficult to take. Toxic manifestations aside from deafness and vertigo are often asymptomatic, requiring repeated laboratory studies. The patient must be taught the importance of taking the prescribed doses of the drugs. Until a "miracle drug" becomes available which is capable of killing the tubercle bacilli quickly, hospitalization during the active stage is necessary.

Two age groups have increased in the sanatorium population—the very young and the very old. The proportion of men more than 60 years of age is steadily increasing. In this group long-term chemotherapy and hospitalization during the entire period of treatment have shown encouraging results. Many continue as chronic active cases, certainly a dangerous group in any community.

The very young are best handled in a hospital. Active primary tuberculosis responds to antimicrobial therapy with rapid conversion of the bacteriologic findings but slow improvement in the pulmonary and glandular lesions.

The present treatment of tuberculosis has far from stabilized and many questions plague the physician. Is there too much dependence on the examination of surgical specimens? Have the earlier procedures been dropped too quickly? Should pneumothorax be reconsidered in conjunction with drug therapy rather than resection?

Meantime the problem of tuberculosis remains that of the community and of the individual. More thorough search for the unknown cases must be instituted. Persons with apparently inactive tuberculosis must be checked periodically and all persons with positive tuberculin reactions should be followed by periodic roentgenograms in order to find the disease in its earliest stages.

(The printing of Tuberculosis Abstracts is made possible by the cooperation of your local tuberculosis and health association.)

* Vol. XXVIII, March, 1955, No. 3.



ELECTRON PHOTOMICROGRAPH

Escherichia coli 36,000 X

Escherichia coli ("colon bacillus") is a Gram-negative organism
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Student American Medical Association

The Fifth Annual Convention of the Student American Medical Association will be held at the Sherman Hotel, Chicago, Illinois, May 6, 7 and 8.

The speakers include, Dr. You Chan Yang, Korean ambassador to the U. S., Louis J. Regan, M. D., a prominent physician-lawyer and one of the nation's foremost experts on malpractice, Irving Goldstein, Chicago attorney and leading authority on trial technique, and Nicholas Dallis, M. D., creator of "Rex Morgan, M. D.", the popular newspaper feature.

John A. Oates, Jr., President of SAMA, invites all members of the medical profession who are in the Chicago vicinity during the Convention to attend the meeting.

Society for the Prevention of Asphyxial Death, Inc.

The Society for the Prevention of Asphyxial Death, Inc., has called a meeting to be held March 24, 1955, at 8.00 P. M., at the New York Academy of Sciences to celebrate the completion of 100 Courses in Clinical Hypoxia (Resuscitation through Pneumatology).

The nine hundred students who have attended these courses are invited and admission to the meeting will be by card. Please address Secretary, S.P.A.D., Inc., 2 East 63rd Street, New York City 21, N. Y., stating "Admission card requested."

Department of Health and Welfare Division of Maternal and Child Health (Including Services for Crippled Children) Clinic Schedule — January Through June, 1955

ORTHOPEDIC CLINICS

Portland — Maine General Hospital, 9.00 a. m.: Jan. 10, Feb. 14, Mar. 14, Apr. 11, May 9, June 13.

Lewiston — Central Maine General Hospital, 9.00 a. m.: Jan. 21, Feb. 18, Mar. 18, Apr. 15, May 20, June 17.

Rumford — Community Hospital, 1.30 p. m.: Mar. 16, June 15.

Waterville — Thayer Hospital, 1.30 p. m.: Feb. 24, June 23.

Rockland — Knox County Hospital, 1.30 p. m.: Feb. 17, May 19.

Machias — Normal School, 1.30 p. m.: Jan. 5, Apr. 6.

Presque Isle — Northern Maine Sanatorium, 9.00 a. m. and 1.00 p. m.: Jan. 11, Mar. 9, May 10.

Fort Kent — Peoples Benevolent Hospital, 10.00 a. m.: Jan. 12, May 11.

**Bangor* — Eastern Maine General Hospital, 1.30 p. m.: Jan. 27, Mar. 24, May 26.

Augusta — Augusta General Hospital, 1.00 p. m.: Apr. 28.

CARDIAC CLINICS

Portland — Maine General Hospital, 9.00 a. m.: Will be held every Friday with the exception of holidays.

Bangor — Eastern Maine General Hospital 9.00 a. m.: Jan. 28, Feb. 25, Mar. 25, Apr. 22, May 27, June 24.

CLEFT PALATE EVALUATION CLINICS

Portland — City Dispensary, 65 India Street, 10.00 a. m.: Feb. 8, May 17.

PEDIATRIC CLINICS

**Bangor* — Eastern Maine General Hospital, 1.30 p. m.: Jan. 28, Feb. 25, Mar. 25, Apr. 22, May 27, June 24.

**Waterville* — Thayer Hospital, 1.30 p. m.: Jan. 4, Feb. 1, Mar. 1, Apr. 5, May 3, June 7.

**Presque Isle* — Northern Maine Sanatorium, 1.30 p. m.: Jan. 26, Mar. 23, May 25.

*Several of the Pediatric Clinics, and also Bangor CC Clinics, will be two-session clinics.

*By Appointment Only

Mental Health Clinic Schedule

The Division of Mental Health offers psychiatric clinic service to children and adults in the following cities:

Portland — Health and Welfare Department, 178 Middle Street. Every Tuesday.

Lewiston — Out-Patient Department, Central Maine General Hospital. Every Monday.

Augusta — Bureau of Health, Division of Mental Health. By Appointment.

Waterville — Mansfield Clinic, Thayer Hospital, 3rd Wednesday.

Bangor — Out-Patient Department, Eastern Maine General Hospital. 1st Wednesday afternoon.

Valentine School, Union Street. 1st Thursday.

A traveling clinic visits the following towns and cities at irregular intervals: Caribou, Houlton, Lincoln, Machias, Rockland and Rumford. The Portland Clinic is open daily with a staff of 1 psychiatric social worker and 1 psychologist. The psychiatrist is in attendance on Tuesdays. The other clinics are staffed by a psychiatrist and a psychologist.

Referrals may be made by private physicians, parents, families, school agencies, school superintendents, Department of Education, all divisions within the Department of Health and Welfare. Application blanks may be obtained from the main office of the Division of Mental Health — State House, Augusta.

Patients are seen by appointment only. Each child must be accompanied by a parent or guardian. Applications should be sent to the Director, Division of Mental Health, Department of Health and Welfare, State House, Augusta.

Polio Vaccination Plans for 1955—Continued from page 81

known now, this is the only acceptable schedule for the use of Salk's vaccine.

As previously mentioned, all of this must be done on a tentative basis contingent upon a favorable report, but there seems to be no other way in which maximum advantage, in terms of utilization this year, can be taken of a favorable report.

Much may be at stake for we have no way of knowing what our polio experience this year may be. A successful program of immunization of 40,000 children will require a tremendous amount of co-operation on the part of school personnel, local officials, volunteer assistant, health personnel, nurses, physicians, and many others. However, if this immunization offers the first realistic approach to the control of poliomyelitis, everyone will consider his efforts to have been well spent.

(See editorial and brief summary in J. A. M. A.—2-26-55.)

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Bumbalo, T. S., Gustina, F. J.,
and Oleksiak, R. E.:
J. Pediat. 44:386, 1954.

White, R. H. R., and
Standen, O. D.:
Brit. M. J. 2:755, 1953.

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Brown, H. W.:
J. Pediat. 45:419, 1954

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 Stethoscopes—Pilling Special, B. D. Fleischer (2)
 Colles Splint (Plastic Rolled Type)
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 White Enamel Emesis Basin
 White Enamel Irrigator
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The Journal of the Maine Medical Association

Volume Forty-Six

Portland, Maine, April, 1955

No. 4

THE ACKROYD TEST

ALBERT ARANSON, M. D.*

In 1953, J. F. Ackroyd showed that the mechanism of allergic purpura was due to an antibody antigen reaction which injures the capillary endothelium and the platelets. In athrombocytopenic purpura the capillary endothelium alone is damaged. Ackroyd showed that addition of sedormid to citrated blood of a sedormid sensitive patient resulted in agglutination of the platelets. In heparinized plasma the platelets were agglutinated and if complement were present lysis of the platelets rapidly occurred. Since a large number of drugs have been found to cause purpura in sensitized individuals, and since thrombocytopenic purpura may also be caused by other factors, such as neoplastic invasion of the bone marrow, hypersplenism and infections, this test becomes of value both in a positive and negative sense. If a patient is sensitive to a particular drug it is of great importance that the drug be discontinued and never given again to this patient. The test may also be used to differentiate thrombocytopenic purpura due to drugs from that due to other causes. This is illustrated by the following two cases:

1. B. M. A 60-year-old housewife, was admitted to the hospital on 2/22/53, complaining of bleeding gums and gross melena consisting of bright red blood with each bowel movement. She also noted scattered purpuric spots on her skin of one day's duration. Two days before admission the patient had received telopaque during a Graham-Cole, gall bladder series.

About two hours after taking telopaque she noted a transient urticarial rash which lasted about an hour and which she failed to mention to her physician. Gall bladder series revealed multiple small stones in the gall bladder. On admission to the hospital there was bleeding from the gums, the skin was covered with petechiae and large ecchymoses, platelet count was 11,000 and the bleeding time was prolonged to over ten minutes. Clotting time was normal. Examination of the bone marrow was normal. She was transfused with fresh whole blood and started on cortisone on a dosage of 300 mg. daily. Over a period of eight days there was a steady gradual rise in platelet count and subsidence of bleeding. She was discharged on 3/11/53, asymptomatic. She was admitted to the hospital again on 3/13/53, because of recurrence of rectal bleeding. Barium enema revealed a small polyp of the descending colon and surgical removal was advised. In view of her thrombocytopenic purpura it was decided to test her blood for the presence of antibodies against various drugs which might be used for sedation and anesthesia. Platelet count at this time was 295,000. She was therefore tested against a variety of drugs, such as, demerol, atropine, quinine, sodium phenobarbital and telopaque. Of these only telopaque showed an agglutination and lysis of the patient's platelets. Removal of the polyp was carried out in an uneventful fashion. She was again admitted to the hospital on 3/5/54, for removal of papillomata of the skin of the face and right wrist. At which time the Ackroyd test was

* Medical Staff, Mercy Hospital, Portland, Maine.

again repeated and the patient showed sensitivity only to telopaque.

Case 2. H. G. This 55-year-old male was admitted to the hospital on 10/25/54, and expired on 11/18/54. Five years before admission a subtotal gastrectomy had been performed for what appeared to be a benign ulcer of the lesser curvature. Microscopic examination revealed an adenocarcinoma, grade III, extending through the wall of the stomach. Despite this the patient was well and free of symptoms until approximately ten weeks prior to his death. At that time he noted sudden onset of left lower back pain while stooping over to pick up lumber at his place of work. He was treated for three or four days with local heat and tolseram (tolserol carbamate). He made a good response and was able to return to work. Three weeks later there was a recurrence of pain for which hospitalization was advised. He was again treated with tolseram. On admission to the hospital examination showed a middle-aged man with exquisite tenderness, localized to the area of the recti spinae muscles on the left, just above the level of the iliac crest. Neurological examination was negative and the rest of the examination was not remarkable. X-rays of the lumbar spine revealed minimal hypertrophic changes. Initial laboratory work revealed microscopic hematuria, consisting of 3 to 5 RBC per high dry field. Stools were positive for occult blood. Initial red count was 4.2 million with 82% hemoglobin. Three days after admission the hematuria increased to 20 to 30 RBC and he developed bleeding of the gums. Initially his platelet count was 190,000 and clot formation was good. Subsequently his plate-

lets were noted to be decreased in the smear and repeat platelet counts showed levels that were lower than normal, between 70,000 and 130,000. Prothrombin time was consistently depressed, ranging between 24% and 40%, but other liver function tests were within normal limits. A gastrointestinal series was not remarkable. An intravenous pyelogram was normal. On 11/2/54, his red count had dropped to 2,370,000 and he was given whole blood followed by 300 mgs. of cortisone daily. The platelet count subsequently dropped even lower. He received further blood transfusions and cortisone was continued. Examination of the platelets with respect to sensitivity to tolseram indicated that he was not sensitive to this drug. The patient expired on 11/18/54. Autopsy revealed adenocarcinoma of the stomach metastatic to the lumbar vertebrae, the lymph nodes along the superior border of the pancreas, with massive vascular spread in the lungs and spleen; thrombocytopenic purpura with hematuria, melena, petechiae, ecchymoses of the skin, and a large subdural hemorrhage in the cerebellar fossa and bilateral intracranial hemorrhages of both parietal lobes.

SUMMARY

Two cases of thrombocytopenic purpura are presented in one of which the Ackroyd test was of value in ascertaining the sensitizing drug. In the second case the test showed that a possible drug was not responsible for the thrombocytopenia.

REFERENCES

- J. F. Ackroyd, M. D., M. R. C. P. *Amer. Jour. of Med.*, May, 1953, pp. 605-632, Vol. XIV, No. V.

Presidential Inaugural Ceremony to be Broadcast

Highlights of the inauguration of Dr. Elmer Hess of Erie, Pa., as 109th president of the American Medical Association will be broadcast nationwide on Tuesday evening, June 7, during the Association's 104th Annual Meeting. The ceremonies will be held in the Ballroom of Convention Hall at Atlantic City, N. J.

An added attraction will be an address by the celebrated Norman Vincent Peale, D. D., pastor of the

Marble Collegiate Church of New York City. Dr. Peale will speak on "The Relationship of Religion and Medicine."

Immediately following the formal inaugural ceremony, a reception honoring Dr. Hess will be given in the American Room of the Traymore Hotel.

More details on time and station of the radio broadcast will be announced later in the *Journal of the AMA*.

BORIC ACID POISONING

Case Report

GEORGE W. HALLETT, JR., M. D.*

INTRODUCTION

Boric acid is a drug of very questionable value but continues to be widely used. A number of cases of fatal poisoning have appeared in the literature in the last ten years, most of which have occurred in infants¹ or in burned patients.² The drug is easily absorbed through the injured skin but may also pass through the intact tegument, as shown by Kahlenberg.³ A concentration of 0.052% in any organ is considered definitely lethal. Crystal, powder, ointment or solution forms have all, at one time or another, caused severe poisoning.¹ The following case represents still another avoidable tragedy from boric acid usage.

On October 10, 1954, a small eighteen-day-old female was brought to the Mercy Hospital in a state of acute shock. According to the mother, the baby had been perfectly well until the 16th day of life—delivery, neonatal course and weight gain had all been normal.

HISTORY AND PHYSICAL EXAMINATION

Two days prior to admission, the baby had developed "blisters" around the buttocks and upper thighs, which had broken open and left a raw, underlying surface exposed. Boric acid powder was then applied at each diaper change. One day before admission vomiting developed and the day of admission "many" watery, green mucoid stools were passed.

Physical examination at the time of admission showed an unresponsive, extremely dehydrated, eighteen-day-old baby in acute distress. The nasal passages had a gray-yellow discharge and the baby was vomiting a greenish mucous and passing frequent, small, watery, green stools. The buttocks and upper thighs were excoriated and raw and there were 1 cm. vesicles over the lower abdominal wall which were oozing a yellow serous material. Impression on admission was boric acid poisoning, with a second possibility of overwhelming septicemia.

TREATMENT

Accordingly, the baby was treated with Achromycin, Penicillin and Streptomycin, intramuscularly, intravenous fluids of 5% dextrose in saline and 5% dextrose in water and warm saline compresses to the excoriated areas of buttocks and thighs.

Despite partial restoration of hydration, the baby's respirations became more and more rapid and shallow, and vomiting and diarrhea persisted. Small 1 cm. red ecchymotic areas began to appear over the cheeks and scalp. Twenty-four hours after admission the baby expired.

AUTOPSY FINDINGS

Postmortem examination showed: (1) Acute congestion of all the organs. (2) Marked submucosal congestion of the bladder. (3) Subacute inflammation of the small bowel mucosa.

Blood culture showed no growth. Organ analysis at the Maine State Laboratory disclosed the liver to contain 0.0564% boric acid and kidneys 0.0403% boric acid. In view of the absence of other explainable causes of death and the typical finding of submucosal bladder congestion, it was felt that this patient represents a true instance of boric acid absorption and death.

COMMENT

This case is a further instance of the inherent danger in the use of boric acid, particularly when applied to a wide or a raw skin surface. There have now been over 100 reported infant deaths from boric acid poisoning. It would seem that the minimal antiseptic qualities which this drug affords are more than outweighed by its potential toxic effects.

BIBLIOGRAPHY

1. Abramson: Fatal Boric Acid Poisoning in a Newborn Infant. *Pediatrics*, Vol. 4, 1949, 719.
2. Cope: Care of Victims of Coconut Grove Fire at Massachusetts General Hospital. *New England Journal of Medicine*, 229:138, 1943.
3. Kahlenberg: Jr. *Biol. Chemistry*, 62:149, 1924.

* Pediatric Staff, Mercy Hospital, Portland, Maine.

TORSION OF THE SPERMATIC CORD

FREDERICK B. CLARK, M. D.*

INTRODUCTION

Torsion of the spermatic cord is not an uncommon condition. In two years of private practice, it has been observed five times. In one of these patients the involved testis was saved; in the other four patients, the involved testis was gangrenous and orchiectomy was necessary. The condition may occur at any age, but it is commonest in the first and second decades.

A characteristic developmental defect exists which permits torsion of the spermatic cord to occur. Under normal conditions, the testicular mass is fixed within the vaginal sac by reflections of the tunica vaginalis to the scrotal wall. Torsion of the spermatic cord is possible because this fixation is not afforded; the tunica vaginalis being reflected from the spermatic cord. The testis thus hangs as a clapper in a bell, without fixation. The motivating force that causes torsion is unknown. It is believed that spasm of the abnormally inserted cremaster muscle causes and maintains torsion. The testis may twist on the cord many times, the end result being occlusion of the circulation and gangrene of the testis.

CLINICAL SYMPTOMS AND SIGNS

The cardinal clinical symptom is sudden onset of excruciating testicular pain, which is constant and unrelenting. There may be radiation to the flank and groin. There may be nausea and vomiting. Early, shortly after the onset of the pain, the temperature is normal but later, as ischemic changes occur, there may be slight temperature elevation. The physical findings vary according to the duration of the illness. When the patient is examined shortly after the onset of the pain, the local changes are few but quite specific. The testis is retracted high in the scrotum, closely approximating the level of the external abdominal inguinal ring. The overlying skin may be moderately edematous and slightly hyperemic. The testis is tense and extremely tender to palpation. The tenderness is not confined to the epididymis as in acute epididymitis, but involves the testis and all of its appendages. In torsion of the spermatic cord, elevation of the testis causes exacerbation of the pain (Prehn's Sign). This maneuver causes relief of pain in acute epididymitis and is a very important observation to make in differentiating the two conditions.

Six to twelve hours after onset, changes secondary to gangrene of the testicle become apparent. The scrotum and contents become enlarged to two and three times normal size. The scrotal wall becomes

more edematous, thickened, and reddened, and fixed to the testis. The pain and tenderness is much less severe. There may be a complete absence of tenderness, but when present, is diffuse and not localized to any part of the mass. The temperature is elevated one to two degrees. There is usually moderate leukocytosis at this stage.

DIFFERENTIAL DIAGNOSIS

The conditions to be considered in differential diagnosis are: acute and chronic epididymitis, orchitis, hematocele, hydrocele, spermatocele, torsion of the appendix testis, and testicular tumor. Acute epididymitis is characterized by gradual onset of intra-scrotal pain with chills and fever. There is usually associated urinary tract infection or recent urological instrumentation. Pain is not so severe and the induration and tenderness is localized to the epididymis. Elevation of the testicle relieves the pain in acute epididymitis. There is usually a marked leukocytosis. Orchitis is also gradual in onset, with less severe, but more persistent pain. The condition is rare in children and is usually a complication of mumps in adults. There is gradual increase in size of the testis with testicular tumors and pain is usually absent. In event of hemorrhage into the tumor, the differential diagnosis may be more difficult, and only surgical exploration will establish the diagnosis. Spermatocele and hydrocele are gradual in onset, and are usually nontender or mildly so. They are translucent to light. Acute hematocele may give some difficulty but there is usually a history of direct violence. A differential diagnosis from torsion of the appendix testis may be difficult. This condition is also very sudden in onset with edema of the scrotal skin. Elevation of the scrotum does not relieve pain. Since the appendix testis is located on the upper anterior surface of the testicle, the pain and tenderness are well localized to that area. The diagnosis is frequently established only after surgical exploration.

IMMEDIATE OPERATION

Torsion of the spermatic cord is a surgical emergency. Surgical correction of the torsion with fixation of the testis must be done within six hours of the onset of pain if the organ is to be saved. Fixation of the testicle is accomplished by excising the parietal tunica vaginalis, and loosely suturing the testicle to the medial scrotal wall. Firm fixation results because of adhesions between the raw surface of the scrotal wall and the visceral tunica vaginalis. The abnormal reflection of the tunica vaginalis which permits tor-

* Surgical Staff, Mercy Hospital, Portland, Maine.

sion, frequently is bilateral, so that orchiopexy should also be carried out on the opposite side. If prompt surgical treatment is not possible, manual reduction of the torsion should be attempted to be followed later by orchiopexy.

Gangrene of the testicle necessitating orchiectomy, occurs in about three-fourths of the patients with torsion of the spermatic cord. In most of these instances the patient has not sought medical attention until after the first few critical hours. Any patient with sudden onset of severe testicular pain is entitled to surgical exploration of the scrotum.

CASE REPORTS

Case #1: A 17-year-old white male was admitted to the accident ward of the Maine General Hospital at 11:55 P. M., September 24, 1953, with severe left testicular pain of about one hour's duration. The pain began very suddenly, shortly after the patient retired for the night. The remaining part of the history was negative. Physical Examination revealed a well developed, well nourished white male, appearing acutely ill. Blood pressure was 120/70, the pulse was 92, the temperature was 98.6. The physical examination was negative except for the scrotum. The right testicle and appendages were normal in position, size, and consistency. The left testicle was drawn high in the scrotum and was very tense to palpation and extremely tender. Further elevation of the testicle caused exacerbation of the pain. There was moderate edema and redness of the scrotal skin overlying the testicle. The urine examination was negative. The white blood count was 15,900 with 74% polymorphonuclears, 20% lymphocytes, 2% monocytes, and 4% eosinophiles. The initial impression was torsion of the spermatic cord. The patient was taken to the operating room immediately for surgical exploration of the scrotum. After administering the anesthetic and preparing the operative field, it was noted that the left testicle was no longer high in the scrotum and assumed a normal position, somewhat lower than the right testicle. It was felt that the torsion had reduced itself, nonetheless, surgical exploration was carried out. On opening the left vaginal sac, a small amount of serous fluid escaped, there was considerable edema of the epididymis and testicle with a rather marked hyperemia. The testicle was not fixed to the medial wall of the scrotum, and a high reflection of the tunica vaginalis from the spermatic cord was found. Orchiopexy was carried out in the manner described. The right testicle was explored and an orchiopexy was performed. The patient made an uneventful recovery.

Case #2: E. E. A 15-year-old student was admitted to the Mercy Hospital on October 26, 1954, because of pain and swelling in the right scrotum.

One week prior to admission, the boy complained of sudden onset of severe right testicular pain. After 24 hours, the pain began to subside and he found that if he kept still, he was fairly comfortable. On October 22nd, he consulted his family physician who referred the patient. The remaining history was negative. At time of admission the temperature was 99.2, the pulse was 88. Physical Examination revealed a well developed, well nourished white male, not appearing acutely ill. The right scrotum was swollen, reddened, and edematous. Slight palpation elicited extreme tenderness. Elevation of the testicle did not relieve the pain. The laboratory work was normal. A surgical exploration of the right scrotal content revealed a gangrenous testis, secondary to torsion of the spermatic cord. The gangrenous testicle was removed and orchiopexy was carried out on the opposite side. The patient made an uneventful recovery.

Case #3: D. H. Age 14, was admitted to the Mercy Hospital on the 10th of September, 1954, with a chief complaint of swelling in the left scrotum. Five days prior to admission, during the night, the patient experienced sudden onset of severe pain in the left testicle. The pain was severe and persistent. He remained awake all night tossing about in the bed. The patient did not consult his physician until the following day when the pain was quite a bit less but the testicle was swollen and very tender to touch. His physician gave him an injection of Penicillin for the following few days, with a suspected diagnosis of acute epididymitis. When it was found the condition did not respond, the patient was referred for consultation. The past history revealed that the patient had had several episodes of similar pain which subsided spontaneously. Several months prior to admission, he had a very severe attack of testicular pain, and it had been necessary for him to stay home one day from school. Physical Examination revealed a well developed, well nourished white male, not appearing acutely ill. The temperature was 99, pulse 100. The physical examination was negative except for the scrotum. The left side of the scrotum was greatly enlarged, edematous, and reddened. Palpation of the left testicle revealed marked tenderness. Elevation of the testicle did not relieve the pain. The laboratory work was normal. A diagnosis of gangrene of the left testicle secondary to torsion of the spermatic cord was made. Under spinal anesthesia the left scrotum was surgically explored and a gangrenous testicle was found. Orchiectomy was performed. The right scrotum was explored and the typical deformity permitting torsion of the spermatic cord was found. Right orchiopexy was performed, the patient made an uneventful recovery.

Case #4: W. C. was admitted to the Maine General Hospital on the 9th of January, 1955, with the chief complaint of left scrotal swelling. Five days prior to admission, he experienced sudden onset of left testicular pain. The parents put the boy to bed. The pain continued but after about 12 hours it became much less severe. At this time it was noted that the scrotum was quite edematous, swollen, and reddened. After another 24 hours, it was found that the symptoms did not subside so the family physician was consulted who referred the patient. Physical Examination: Blood pressure normal. Temperature 100. Pulse 90. Examination revealed a well nourished, well developed white male appearing the stated age of eight years. Examination was negative except for the left scrotum. The scrotal wall was markedly reddened, edematous, and several times the normal size. Palpation revealed very moderate tenderness. The laboratory work was normal. A diagnosis of gangrene of the testicle secondary to torsion of the spermatic cord was made. The left side of the scrotum was explored and a gangrenous testicle secondary to torsion of the spermatic cord was found. Orchiectomy was carried out. Orchiopexy was done on the opposite side. The patient made an uneventful recovery.

Case #5: W. F. A 62-year-old white male was referred because of left testicular pain and swelling of two weeks' duration. A history was very difficult to obtain. The first symptom was left testicular pain beginning at night. The patient did not remember it being sudden in onset. The pain subsided by morning and during the following 24 hours, the left

scrotum became progressively larger and reddened. The following day the patient returned to work and had no symptoms other than those produced by an ungainly mass in the left scrotum. After two weeks the swelling did not lessen. He then consulted his physician. Examination revealed the left scrotum to be enlarged about three times. The skin of the scrotum was moderately reddened, edematous, and fixed to the testicle. Palpation of the mass revealed no tenderness. White blood count was 15,000 with 74% polymorphonuclears, 26% lymphocytes. The urine examination was negative except that it was loaded with white blood cells. The differential diagnosis was somewhat more difficult than the previous cases. Testicular tumor was considered because of the lack of tenderness. The pyuria suggested the possibility of a subsiding epididymitis. Torsion of the spermatic cord was dismissed because of the patient's age, presence of a urinary tract infection, and the failure to elicit history of sudden onset of severe testicular pain. The patient was admitted to the Maine General Hospital on the 10th of February, 1955, and exploration of the left scrotum revealed a gangrenous testicle, secondary to torsion of the spermatic cord. The testicle was removed, orchiopexy was carried out on the opposite side. Cystoscopy revealed bladder neck obstruction with multiple diverticula of the bladder, for which he refused treatment. The patient made an uneventful recovery.

SUMMARY

The diagnosis and treatment of torsions of the spermatic cord is discussed. Five illustrative cases are presented.

New Exhibit on Alcoholism

The startling fact that "one out of sixteen adult men and women drinkers becomes an alcoholic" is borne out in a new medical exhibit on alcoholism currently in production by the AMA's Bureau of Exhibits. To be unveiled at the Association's Annual Meeting in June in Atlantic City, this exhibit discusses the etiology, diagnosis and treatment of the disease and shows the progressive stages from an occasional drinker to the alcoholic. Particularly stressed are the many procedures employed in treating acute alcoholic intoxication as well as chronic alcoholism, including total abstinence, hospitalization, restoration of fluid balance and compensation for

dietary deficiencies by prescribing high carbohydrate intake, vitamins, etc.

In addition, the exhibit points out the ways in which various community organizations such as the county medical society, local welfare and health departments, church organizations and Alcoholics Anonymous can help the alcoholic resolve his problems. The exhibit, which is being prepared in cooperation with the Committee on Alcoholism of the Council on Mental Health, will be available for showings at state medical society meetings and allied professional gatherings after July 1. Contact the Bureau for further information.

"THE CASE OF THE GOUTY TUB"—A SIMPLE SOLUTION

PHILIP P. THOMPSON, JR., M. D.*

ILLUSTRATIONS BY ANNA B. ORBETON

With apologies to Erle Stanley Gardner, the Perry Mason in this detective fantasy is the author.

DRAMATIS PERSONAE:

- "Crystal" Urate—a harmless solute but wicked when precipitated.
- Her cousins—more of the same type.
- "Bones"—as you and I know them.
- "Tendon" and "Ligament"—a couple of tough boys and associates of "Bones."
- "Blood"—a character who circulated "Crystal" too freely.
- Cops—(uricosuric agents) acting as incomparable solvers.
- Benemid—a plumbers helper.

SCENES:

- Tub—(see Fig. 1a) old fashioned kind and when used in slang referring to Homo Sapiens in general.
- Gouty Tub—(see Fig. 1b) same but with Crystal and more of her cousins about.
- "The Joint"—a frequent hideout for Crystal.

* Medical Staff, Mercy Hospital, Portland, Maine.

Where things explode when she mixes with alcohol or other events happen to her.

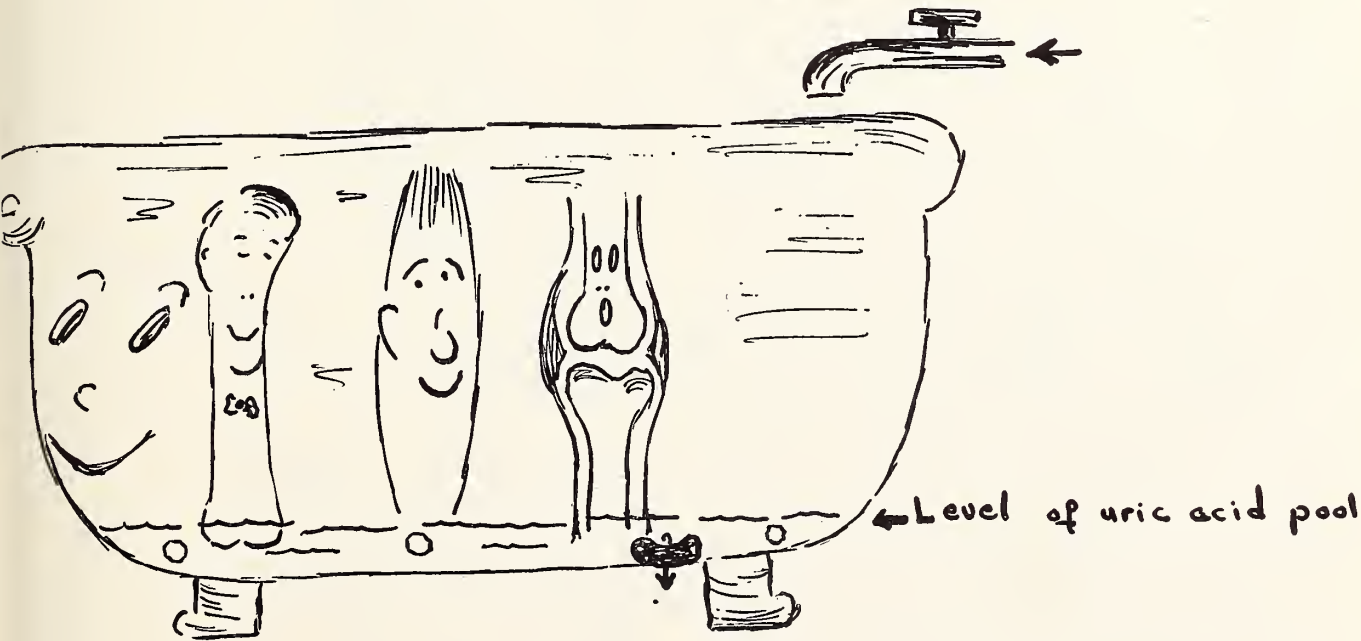
TIME:

Spring or Fall any year.

Crystal Urate, our villainess, is a sort of a Dr. Jekyll and Mr. Hyde personality. This might have been suspected. For she was descended from "Uricum Purum" who was, as one might suppose, "purine heart" and also from an acid character, "Nucleic." She was at times smooth and as innocuous as a rubber ball. (See Fig. 2 Crystal Solute.) This was chiefly when acting as a solute or her Mr. Hyde-like self. In our normal tub this is the way she always acts.

However, in "The Gouty Tub," the scene of our story, she was under the influence of her numerous cousins. When they were with her, she became a sharp, multiserrate, licentious precipitate or her Dr. Jekyll-like self. (See Fig. 2—Crystal Precipitate.)

Her modus operandi was to strike sharply and suddenly at night. Her victims were almost always men and often those drugged with alcohol. In their weak-



NORMAL TUB

Figure 1a.

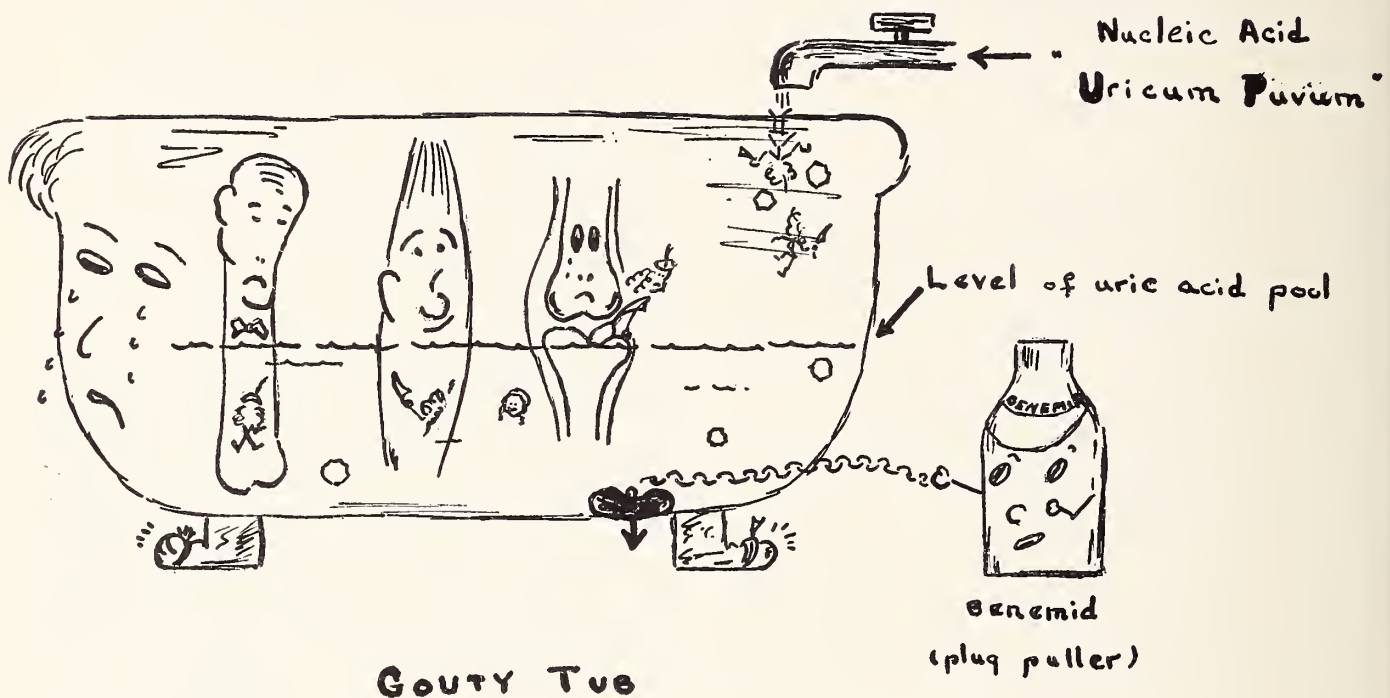


Figure 1b.



Crystal Solute
(Mr. Hyde)



Crystal Precipitate
(Dr. Jeckyll)

Figure 2

ened condition either by a hunting or fishing trip, a cold day, or after an operation, they were a almost sure prey for Crystal. She would strike with sharp knives and daggers such as one would expect to find on certain crystals. These were like splinters of shattered glass. With these she stabbed her victims.

The locale of our story is loosely described as "The Tub" where Crystal and her cousins circulate freely. Within this area we find our principal characters, Blood, Bones and Tendons to which she and her cousins attached themselves. Within the confines of "The Tub" is "The Joint," a common hangout for this arch enemy of the ruddy alcoholic, other rowdies, and rum-dums. Here it is that the victims were left wracked and aching after her foray.

At this time the cops are called for assistance. As usual, they appear on exhibition. With the aid of the police force of Capt. Colchicine, Sgt. Butazolidine, and Patrolmen ACTH and Cortisone, Crystal is literally and figuratively liquidated. She is changed from the dangerous "Jekyll" Precipitate to the benign "Hyde" Solute. That, my friends, is a solution by solution, unusual even for Perry Mason.

We have but one item to clear up to finish this "Tale of the Tub." That is, to explain how Benemid works. Benemid is the clean up man, a plug puller, or veritable plumbers helper.

By his work, the pool of crystals are allowed to drain off. Thus, he corrects the entire sequence of abnormal physical-chemical equilibria heretofore described.

Some may wonder why the great toe or ankles are most commonly affected in this disease. It is perfectly obvious when one realizes that all precipitates are deposited at the bottom of any container.

SUMMARY

It is postulated that the acute attacks of gout are caused by physical-chemical disturbances occurring when urates are precipitated or dissolved.

REFERENCES

1. Punny Man's Handbook.
2. "Every College" Chemistry Book.
3. The Case Of ".....", E. S. Gardner.

EVALUATION OF A DRUG THERAPY IN ARTHRITIS AND RHEUMATOID CONDITIONS*

FRANK W. BARDEN, M. D., PAUL S. HILL, M. D., KENNETH J. CUNEO, M. D.

INCIDENCE OF RHEUMATIC DISEASES

According to surveys made by the U. S. Public Health Service,¹ rheumatic diseases constitute one of the principal causes of absenteeism in industry, and certainly these disorders present a problem of considerable magnitude in the industrial clinic because of the frequency with which they are encountered—not to mention their chronicity and exacerbations. The high incidence of arthritides among employees can in a great measure be attributed to the older age groups and to the general metabolic impairment which is related to the aging process. There is little doubt but that emotional stress and strain play an important part in the etiology of these distressing and disabling conditions.

The situation assumes a position of great economic importance when viewed in the light of statistical reports² which show that 97 million working days are lost each year because of arthritis, and more than 26 million patients report annually for treatment of rheumatic diseases. It is, indeed, strange that this situation should exist in a country where hardships from starvation, exposure and oppression are virtually unknown, and where medical services are the best available. Statistics, however, are diversely in-

terpreted, and perhaps our high standard of living and the rapid progress in all fields of the medical sciences do not permit us to acknowledge with complacency the concept that these diseases are inevitable or refractory to therapy. The practice of industrial medicine affords a special opportunity to observe the onset and course of many disorders of a chronic and insidious nature and to arrange for early treatment of the patient by his personal physician. Through the use of sedatives, analgesics or physical therapy, the employee can be afforded symptomatic relief until appropriate therapeutic measures can be applied. The industrial physician is in a position, therefore, to evaluate clinically the relative merits of many emergency drugs, based upon the degree of subjective relief which they afford the patient and the frequency of occurrence of unpleasant side reactions. The clinical impression thus formed would apply with equal value to conditions which exist in any private practice. Few drugs are curative in the accepted sense of the word. They afford relief of pain and discomfort or modify some physiological imbalance to aid in repair or to tide the patient over some acutely critical condition until normalcy can be restored. Fortunately, a great many diseases are of a self-limiting nature but appropriate palliating therapy can very significantly shorten the course and reduce to a minimum the more serious complications.

* From the Medical Department of the Saco-Lowell Shops and the Webber Memorial Hospital, Biddeford, Maine.

SALICYLATE THERAPY

For a long time — at least 200 years — physicians have prescribed salicylates in one form or another (sometimes not recognizing them as such) in the treatment of rheumatic disorders and generally for the relief of pain and discomfort in those conditions which would not ordinarily require narcotics. Although salicylic acid and its derivatives have been classified merely as analgesics and antipyretics, it has been generally accepted that these compounds exhibit a far more beneficial effect than could be explained by pain relief alone. The drugs that have been introduced in the treatment of rheumatoid arthritis alone can be listed under every letter of the alphabet and all, with the exception of gold, have been abandoned after a year or two of clinical trial, and inevitably there was a return to salicylate therapy. Although this use of salicylates may be considered as empirical, investigations during recent years have disclosed a hitherto unsuspected action of these compounds upon the pituitary adrenal axis, which is capable of explaining the peculiar specificity of salicylates in rheumatic disorders. Cauwenberge and Heusgheim³ of the Department of Internal Medicine at the University of Liege, Belgium, have reported an increase in the urinary ketosteroids following salicylate therapy. Other investigators have observed a significant potentiality toward steroid hormone activity when these hormones were administered concurrently with salicylates. This synergism has been shown for estradiol and it has been suggested that a similar relationship might exist for testosterone and cortisone. The influence of salicylates upon circulating eosinophils and upon the erythrocyte sedimentation rate, and the significance of these tests in evaluating the progress of therapy, have been reported by many authors. These studies strongly suggest two important mechanisms of the action of salicylates: first, actual stimulation of the anterior hypothalamus, thus increasing the output of the adreno-corticotrophic hormones and, subsequently, cortisone by the adrenal cortex; second, a competitive effect in the liver for inactivation or conjugation of these steroids into their excretory forms. A third and perhaps a factor of equal importance is the effect of salicylates upon certain enzyme systems, notably hyaluronidase.

COMBINED THERAPY

Dry, Butt and Scheifley⁴ of the Mayo Clinic, have reported that the concurrent administration of salicylates and para-aminobenzoates results in a therapeutic synergism because of the resulting increase in salicylate blood levels. Although these authors suggest that mutual depression of urinary clearance might explain this clinically important action, the studies of Wiesel and his associates⁵ have shown that para-aminobenzoates alone are capable of reducing cortisone re-

quirements in rheumatoid arthritis when given in adequate dosages. These observations have been amply confirmed in subsequent studies, not only by these authors but by other investigators as well.

In view of these recent trends in the rational treatment of rheumatic disorders by para-aminobenzoate-salicylate combinations, and because of the important economic factors which must be considered with patients of modest incomes, it was felt that a clinical evaluation of this drug combination in the industrial practice should be made. Pabalate® was chosen because it represents a preparation having national distribution and, therefore, easily available at all times, certainly in industrial areas. The enteric coating on the tablet prevents the conversion of sodium salicylate into free, although less soluble, salicylic acid which might give rise to some gastric irritation or interfere with absorption.

CO-OPERATIVE STUDY

Since laboratory studies were not contemplated, it was felt that the personal equation based upon clinical impression could be minimized by a co-operative study in which the participants were representative of different, all-inclusive groups. One of the investigators is a General Practitioner doing surgery, one is engaged in private general practice and interested in anesthesiology and one devotes his full time to the industrial field. The previous experience of each physician in the management of rheumatic disorders with a wide variety of therapeutic agents served as a control in the comparative evaluation of his particular series of patients and the information thus gained was pooled for final analysis and discussion.

Over a period of eight months eighty patients, ranging in age from 24 to 75, and presenting the typical rheumatic and arthritic syndrome for which salicylate therapy is generally prescribed, were examined and placed on Pabalate therapy. Many patients gave histories of previous treatment for arthritis by their personal physician and with the usual wide variety of drugs and physical measures. There had been varying degrees of disability and the severity of symptoms in a considerable number of cases was such as to require hospitalization or home confinement. Nothing of significance could be noted in the incidence of rheumatic disorders between male and female employees, nor in their response to therapy. Case records were maintained, but a satisfactory tabulation of the data for statistical analysis seemed impractical because of the many variables which are encountered in a clinical study of this nature. This is particularly true in disorders of an indeterminate etiology which are often classified as nutritional, metabolic or degenerative and which become chronic in nature.

The combined impressions gained as a result of

this study can best be presented, therefore, as a brief summary.

SUMMARY AND ANALYSIS

- 1. The clinical impression gained as the result of this co-operative study indicated that the response to Pabalate in the treatment of rheumatic disorders is superior to straight salicylate therapy. The relief and improvement were often dramatic and at other times the patient seemed somewhat refractory to all treatment.
- 2. Many patients who failed to respond in a satisfactory manner to physio-therapy frequently experienced considerable relief upon combined para-aminobenzoate salicylate medication.
- 3. In the arthritic group of patients satisfactory relief was very often obtained with Pabalate when other forms of drug therapy had failed.
- 4. No unpleasant side reactions or evidence of salicylism were noted in patients receiving Pabalate. This suggested that therapeutic synergism results from the concurrent oral administration of para-aminobenzoates and salicylates but the effect of the two drugs is not additive in the production of undesirable or toxic reactions.

- 5. The superiority of Pabalate over straight salicylate therapy would seem therefore to rest in its higher "therapeutic index."
Pabalate, used in this study, was supplied by the A. H. Robins Company, Inc., Richmond, Virginia. Each enteric coated Pabalate tablet contains 0.3 Gm. (5 gr.) each of sodium salicylate and sodium para-aminobenzoate.

BIBLIOGRAPHY

- 1. Public Health Service Publication, No. 15 (1950), Page 90.
- 2. Arthritis and Rheumatism Foundation, December 11, 1951.
- 3. VanCauwenberge, H., M. D., Heusgheim, C., Ph. D.: Acetylsalicylic Acid and Urinary Excretion of Adrenocortical Steroids, *The Lancet*, April 7, 1951.
- 4. Dry, T. J. et al.: *Proc. Staff Meet., Mayo Clinic*, 21:497, 1946.
- 5. Wiesel, Leon L., M. D., et al.: The Synergistic Action of Para-aminobenzoic Acid and Cortisone in the Treatment of Rheumatoid Arthritis, *Am. J. Med. Sci.*, 22:243, 1951 (Sept.).
Wiesel, Leon L., M. D., and Barritt, A. S.: "Long Term Treatment of Rheumatoid Arthritis with Para-aminobenzoic Acid and Cortisone Acetate," *American Journal of Medical Science*, 227:74, Jan., 1954.
Wiesel, Leon L., M. D.: "Effect of Para-aminobenzoic Acid on the Metabolism of Cortisone in Liver Tissue," *American Journal of Medical Science*, 227:80, Jan., 1954.

SELF-RESPECTING DOLLARS

HARRIS M. PLAISTED,* Portland, Maine

In America and especially in Maine we take pride in our self-reliance and initiative. In regard to hospital and doctor's bills we have found this to be very difficult at times. However, during the past few years our families in this State have become increasingly more conscious of disability-cost, and at the same time, have brought about a rate of growth in accident and sickness coverage unparalleled in the long history of insurance. The largest measure of this family coverage has come from a product called Group Insurance, which was established to furnish assistance to the medical profession, hospitals, and people who are in business and industry in our State of Maine.

Over four million dollars in claims were paid in 1953 in Maine.** These claim payments exceed all other sources covering this form of indemnity and can be truly classified as a most significant factor in our business life as it is affected by losses through sickness and injury. Certainly when we consider that substantially all of this money is paid to hospitals and doctors in our State of Maine, we have good reason to endeavor to accomplish the highest degree

of understanding between the three principal partners involved.

My wife occasionally uses the term "three way stretch" and we could perhaps identify the basic people involved in this four million-plus cash distribution with this term. It is a stretch for sure, because the amount of money to be needed in the future is unknown and certainly the individual family doesn't know what stretching they will be called upon to meet. The hospitals' year-end statement could easily be referred to as a stretch-sheet and the doctors' time and facilities endure the same strain. The insurance companies underwriting these losses or claims find an increasing pressure against their allocated resources as well as their administrative facilities.

Group Insurance, then, may be considered to be an important effort directed almost wholly towards covering losses through disability to the insured, and reimbursing hospitals, and the medical profession. If each knew the objectives established for this protection, a greater appreciation of its value and importance would be recognized by all those concerned. Briefly these objectives are to provide protection to employers in behalf of their employees and their families against the cost of disability. By pooling num-

* Chartered Life Underwriter.
** "Spectator," 11-54.

bers, the risk is spread over the entire group, instead of the losses being borne by the unfortunate few. Thus it helps the employer by including all his employees and it helps the families by spreading the risks and costs. The hospitals and doctors who receive the payments are beneficiaries in turn. When we stop to consider that this product is a result of leadership by our business and industry in Maine, we will see how basically important it is to our total welfare in the State.

PERSONAL VS. GROUP INSURANCE

In this field of coverage there are only two forms of Insurance—Personal and Group. Personal Insurance represents 20% and Group Insurance approximately 80%. To understand Group Insurance is to know the basic source of these payments.

It is simple to understand because there is specific law on our books in Maine, so we find a generally uniform coverage for all the people covered by it. (Revised Statutes, Chapter 56.)

Here is a partial definition as taken from the National Association of Insurance Commissioners as adopted in 1946.

"A policy issued to an employer, or to the trustees of a fund established by an employer, which employer or trustees shall be deemed the policyholder, to insure employees of the employer for the benefit of persons other than the employer, subject to the following . . ."

Four additional paragraphs describe the conditions that the insurance company must meet; namely, who are employees, who shall pay the premiums (employer), the minimum number of employees required and the amounts of coverage. However, I believe the quotation is enough to show its basic purpose and point of origin and to separate Group from all the other personal forms of protection.

You can see that this coverage *must originate with the owners of business*. They are the policyholder and in buying it feel that it is good for their business and for those who work for them. Hence, if there are 25 employees or 2,500 employees, there is only one policy for each business concern and they do not differ much between insurance companies.

What the policies do and how they do it are nearly uniform and to know one completely is to know a great deal about all the others.

DESCRIPTION OF COVERAGE

For your interest, let us look at the *Hospital, Medical, and Surgical* coverage. First of all, these policies are usually issued without any requirement of evidence of insurability because of the large numbers involved. As a result the group contract is not concerned with the exclusion of pre-existing conditions, impairment riders, etc.

Next, it is a contract between an insurer and a corporation, association or the trustees of a fund in which the *insured individuals are third party beneficiaries*.

A Group Contract covers a constantly changing group of individuals (new employees are coming—others are leaving). However, it is rather permanent insurance coverage, because an employer purchases it to make employment with him more attractive and he tends to keep this improvement in force.

The above shows that there are fewer limitations and greater freedom of administration.

HOSPITAL EXPENSE BENEFITS

Usually covers both employees and family.

Most often covers both for same amounts or limits.

Requires in-patient service (See exception below).

Excluded: Benefits for confinement due to occupational accident or illness.

Policy provides stated amount for daily room and for number of days (31 or 70). May be a fixed benefit or reimbursement, or lately with coin-surance provision.

Policy provides separate amount for "other Hospital Services." Generally stated as maximum being "x times daily room limit." (For example: room limit \$10—other services ten times—\$100 allowance) Reimbursement principle.

Special exception in most policies provides out-patient service with limitation to "emergency care following an accident or for an operation."

Benefit limited to "other services" allowance.

Maternity benefit, because it is not unexpected in relation to time element—total benefit usually is limited to a *flat amount* such as 10 times daily room benefit.

SURGICAL EXPENSE BENEFITS

The insuring clause usually provides for reimbursement of actual charge for an operation *up to* a stated amount or allowance in the policy. The maximum stated amount of the "surgical schedule" listed in the policy is usually the identification of the scale of benefits. (For example, the chest: complete thoracoplasty, or removal of portion of lung—\$200. This is a major operation—shows highest allowance; hence, benefit is known as \$200 schedule.) Schedules also usually cover dislocation and fractures.

Policy usually provides that operation may be performed in hospital or elsewhere by licensed doctor.

Policy generally excludes occupational causes of accident or sickness.

MEDICAL EXPENSE INSURANCE

Medical expense involves reimbursement of charges for doctors' calls. This coverage takes vari-

ous forms. The most familiar and growing form deals with insuring against medical expense requiring hospitalization. Generally stated as reimbursement and figures as a fixed amount per day with the limit of days equal to the Hospital Policy Limit (for example, \$3.00 per day up to 31 times or 31 days hospital expense limit).

This is only a nominal fee as set forth in this coverage. The insurance companies recognize that a relatively larger payment may well be left for the insured to pay to the doctor, according to the medical service rendered.

Generally covers calls where confined with no surgery required. Benefits under this type usually cease upon occurrence of operation.,

Generally covers employee and family, if dependents are covered.

There are several forms covering other medical expense, such as house calls, or office calls—they are usually shown with fixed amounts per call and with a top limit per disability. This form frequently requires total disability with calls during the first week excluded to avoid abuse from trivial illnesses such as hangovers and colds. Generally applies to the employee and not to dependents.

MAJOR MEDICAL EXPENSE BENEFITS

Out of the research departments of our insurance companies has come one of the most important developments in the Group business. It may well revolutionize accident and sickness insurance, as this new coverage is a broad form of protection. Still in its infancy, it has shown remarkable growth.

It embodies two principles which the insurance industry feels to be fundamental. One is a deductible amount similar to automobile collision insurance which avoids the small claims. The other principle is a coinsurance factor which enlists the insureds' cooperation on the amount of costs involved. The insured pays a small part of the remaining expenses, usually 20 to 30 per cent, which provides participation in the financial obligations entered into. Many Maine employees are already covered by this brand new development in the Group field. In most cases it is a supplement to their basic plan. It is the feeling of many in the insurance business that this form of coverage will replace the present style of immediate participation in medical costs of a family. \$5,000 is the maximum coverage for a family at present with a few policies issued to larger concerns covering expenses up to \$10,000. These limits are used for each disability or for a lifetime limit on the family member.

Again we must keep in mind that this Group Policy is issued only to business owners and paid for by them or in part by them and by their employees, and is for the benefit of other than the business owners. One comment made recently shows the deep

impact that this new coverage has upon those insured. Quoting Mr. Edmund B. Whittaker, Vice President, The Prudential Insurance Company of America; "Although claim experience today is very premature, we have found that claims paid during the second policy year are approximately *three times* as much as those paid during the first policy year, and that claims paid during the third policy year will exceed those paid during the second policy year." Latent medical needs come forward as a result of this broad coverage. The insurance companies hope for every effort on the part of those concerned to help it accomplish its purpose of relief from larger necessary expenses of an unforeseen medical nature. It is a sincere effort by the Insurance Industry to help the business owner, his employees, and their families. Hospitals and doctors who are so very important to our medical progress today will be most vitally concerned with the development of this new approach to a difficult problem.

No paper dealing with this subject would be complete without reference to the material used in its every day application. With so many people involved in a single transaction it is necessary to gather information on paper. Brief claim forms perform this function.

FORMS FOR PAYMENT OF CLAIMS

The purpose of the previous material is to show how easily Group Insurance can be identified as a coverage provided by employers for their workers. The benefits are paid very quickly in most claims by either the local insurance office or by the employer's own office staff. The benefit forms are quite brief and easily filled out in order to save time for the employer, hospital and doctor.

The Group Hospital Insurance form is now designed to be the same for all insurance companies operating in Maine. The cooperation demonstrated between the insurance companies and hospital groups in standardizing this form is an example of the progress that can be made in solving mutual problems. The Maine Hospital Association has participated in the development of this form which has simplified both their collection and paperwork problems. It has also improved employer-employee-hospital relationships.

The Medical Forms and the Surgical Forms are very brief in most cases and only require that the doctor show what he did for the patient and when he did it. There usually are separate forms for doctors' calls (Medical) and for operations (Surgical), as they are not designed to both pay for the same disability. Post-operative calls are generally considered to be included in the surgical charge.





If forms are presented for Group Insurance which

Continued on page 109

on all 4 counts

ACH



-  wide spectrum of effectiveness
-  rapid diffusion
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THE PRESIDENT'S PAGE

Mr. W. Mayo Payson, our Executive Secretary since 1947, has resigned his position effective April 18, 1955.

Mr. Payson has served our Association well. During his term of office he has been particularly capable in representing us at the Legislature in Augusta.

This year Mr. Payson has also been Secretary to the Council of the State Medical Societies and has become well known in medical circles throughout New England.

I know that I speak for all the members of the society in thanking Mr. Payson for all he has done for the Association and in wishing him success in his new undertaking.

WILLIAM F. MAHANEY, M. D.,
President, Maine Medical Association.

The Journal of the Maine Medical Association

THOMAS A. FOSTER, M. D., Portland, Editor

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American Medical Association Meeting

We have called attention in previous issues to the rewards received from attendance at the annual meeting of the A. M. A. We believe that every meeting offers valuable and unexpected benefits to the practicing physicians. The scientific programs represent the most thoroughly prepared papers and the exhibits, scientific and technical, offer for study the very latest achievements in their respective fields.

We speak of the next annual meeting at this time because it will be held in Atlantic City. Atlantic City is near at hand, it is especially well equipped to take care of all phases of the meeting and it is a delightful place to visit with ample and varied accommodations. Now is a good time to make plans to attend the meeting this June, the 6th to the 10th.

Dental Caries

During a general medical practice with children over a span of nearly two score years, we have seen many conquests over the diseases of infancy and childhood.

Diphtheria, typhoid, meningitis of various types, mastoids with complications, pneumonia with empyema, and the diarrheas of infancy appear less often, yes rarely, on the death certificates of those dying in early age. And recently reports on the mortality rate of rheumatic heart disease indicate a gratifying improvement. Encouraging advances in surgery have given new hope to congenital heart conditions and other congenital defects. The record is a good and impressive one.

Likewise the control and prevention of deaths in the newborn group have made significant gains. However, the problems of nutritional defects in early years challenge the profession. Although not such acute problems, we grant, as the ones mentioned above, yet they generate ill health and they confront the profession for solution.

One problem in this category which we would like to discuss is the problem of dental caries. During a practice of nearly forty years, a period in which we have observed children from birth, through adoles-

cence to adulthood, we have been disappointed to find a general tendency toward early dental caries which progresses unaffected by our efforts at prevention. Prevention of this decay and destruction of the teeth in the young has failed, judging from examination of patients.

This evident failure in spite of adequate diet, adequate vitamin supplement and good home conditions is embarrassing and puzzling. It raises questions which need our careful study. Among the treatments proposed is the fluoridation of water. This form of treatment has many advocates, many opponents. We know that dental caries in the children of our area exists to a shocking degree. We are anxious to prevent it. We must consider and analyze treatments which promise to control it. We have invited Dr. James Patterson to present evidence against fluoridation to appear in this issue of the JOURNAL. For the proponents, Dr. Dean Fisher has furnished us an article which was published in the May, 1954, issue of the JOURNAL.

The opinion of the members of our Association should have an influence in any decision regarding the value of fluoridation of our water.

Another Look At Fluoridation

Dr. Fishbein in the December, 1954, number of *Post Graduate Medicine* makes a statement to this effect: believing as I do that fluoridation of water supplies is the best way to preserve children's teeth, I am at a loss to understand why so many more municipalities in England are voting against it.

TOXIC EFFECTS OF FLUORINE

In 1952, Heinrich Breiger, M. D., Associate Professor of Medicine and Director of the Division of Industrial Medicine and Hygiene, Jefferson Medical College, says that fluorides have a toxic action on cell enzymes in addition to disturbing the metabolism of calcium. This is in addition to hardening the teeth and bones, the latter condition being known as *ebony bone* by people with chronic fluoride poisoning. The amount of fluoride proposed as an addition to our water supply would be so small that it could never do anyone any damage, I am vociferously told. But I wonder. A personal friend in general practice in New York City found three patients with patent fluorosis of the teeth and bones during the month of January, 1955. Two were from areas in New York State where fluoride had been added to the water and one was from a fluoride water district in Texas. There may be many more that are unobserved. These three came for other diseases but the evidence of fluorosis was found in the course of the examination.

VALUE OF DIET

In April, 1952, the Toronto Medical Officer of Health reported that 41% of secondary school children needed dental treatment in 1950 as compared with 75% in 1943. In Brantford, Ontario, a reduction of 31% was reported in tooth decay in children from five to sixteen years during the period 1945 to 1950, and that percentage is accredited to the fluoride added to the water supply. Toronto's larger percentage of advantage was due to the program of dental services in the schools and instruction in Canada's Food Rules. A more recent report of the Toronto Nutrition Council on diets of school children states that one-fourth of them got insufficient milk, one-third had no citrus fruit, over one-half ate no whole grain cereal, and one-half took no vegetables except potatoes. On the other hand nearly half the children consumed liberally cake, pie, soft drinks and candies. It seems logical to believe that better co-operation by the citizens of Toronto with the effort to improve diet would have shown much more reduction in tooth decay.

Along that same line, the March, 1955, issue of *Post Graduate Medicine* has some very timely studies on nutrition and its effect on dental caries. From page 32 of that issue, I quote, "Before leaving this

short discussion of dental caries we wish to mention some other work now in progress which from an experimental point of view concerns an effective approach to their control by elimination of fermentable carbohydrates from the diet. This procedure requires complete and absolute abstinence from desserts, soft drinks, chewing gum, candies, and other sugar containing foods to assure inhibition by inanition of the sugar fermenting oral micro-organisms associated with tooth decay, the diet must be adhered to rigidly for a minimum of six weeks. Because of the sporadic rather than continuous nature of the caries process, all between meal snacks must be deleted. This diet should be detergent in consistency, i.e., comprised of nonadherent rough, coarse foods conducive to frictional cleansing of tooth surfaces. Immediately after each meal a glass of water must be used as a rinse to remove the great bulk of food stuffs retained in sheltered areas of the mouth. Brushing the teeth in a manner to reach the interdental spaces and necks of the teeth within four minutes following a meal is highly recommended. . . . Each time this rigid restriction of diet is broken the dental caries activity test becomes positive. Adherence to the diet again reverses the reaction (Nine-alfa fluorodihydrocortisone is even more effective per unit of weight for local application than is compound F itself. It is available to practicing physicians)." That would seem to make adding fluoride to any water supply unnecessary.

PROBLEMS IN STANDARDIZATION

Another point that comes from Dr. Margaret Cammack Smith of the University of Arizona, an authority on fluorides, in the *Arizona Republic*, February 10, 1953, where she says in part, the crux of the whole thing is this: nobody yet has determined how much fluorine is good for what section of the country, how much will prevent tooth decay, and how much will cause tooth mottling and deformation. For instance Florence, Arizona, Maywood, Moline and Aurora, Illinois, all have 1.2 parts fluoride per million parts of water. Yet 15% of the children in Aurora have discolored teeth, 31% in Moline, 33% in Maywood and 56% in Florence. In Yuma, where the fluoride content is .4 per million the children are twice as resistant to tooth decay as in Marion, Ohio, where the content is the same. An argument has been voiced that people in Yuma and Florence drink more water because it is hotter and therefore get more fluoride. But in Salida, Colorado, and Joliet, Illinois, which are both cool climates and which both have 1.3 part of fluoride per million the Colorado town has 91% fluorosis record and in Joliet only 25% of the school children have discolored teeth. Until research

discloses a safe tolerance level for fluoride intake in the variable communities our suggestion is that dentists apply fluoride topically instead of putting it in water supplies.

We all know that sensitivity to many drugs, cosmetics, soaps, etc., give us a great deal of trouble in the practice of our profession. Even a laxative must be varied in dosage in the same individual. So it seems a trifle dogmatic to state that 1.5 ppm. of fluoride in water is always safe.

In conclusion, I may state that in a long period as a practicing physician I have not seen anyone die of dental caries, nor have I found it passed from one individual to another as a contagion. However, I feel strongly that fluoridation of water supplies to communities needs more careful consideration than it has received so far by the medical profession.

JAMES PATTERSON, M. D.,
Cape Elizabeth.

Recent Report From Natural Fluorine Water Area

Returning from a holiday, we visited Franklin, Virginia, which is located in an eastern county of the State. While visiting there, we talked with a local dentist who had practiced many years in the city.

Franklin has a high percentage of fluorine in the drinking water of the area. We were told by the dentist that in his opinion fluorine had a marked effect on prevention of dental caries. And we were told, furthermore, that large doses which existed in some

well water used for drinking produced definite pitting and discoloration of the enamel of the teeth, "ebonization." Our informant could not say that large doses, so far as he knew, had caused serious organic diseases or any deaths. We were given the impression that fluorine in small amounts, amounts regulated by reliable controls, was beneficial as a prophylaxis against dental caries.

Self-Respecting Dollars—Continued from page 103

are complicated or lengthy, they will usually be old ones which are out of date. A comment from the doctor to the insurance company concerning its form will generally correct the situation.

For other benefits such as Polio Insurance the same forms are used as outlined above plus actual bills as presented for items not covered by these forms. The same is true for the growing Major Medical Coverage.

Because the coverage is mostly of a standard pattern, so are the forms of a standard pattern. I am sure that the insurance companies will welcome any suggestion which could simplify them further. Their goal is the same as yours.

SUMMARY

In brief this treatise is aimed at giving a better

understanding of this wonderful product of private enterprise serving the private medical field. The description of its provisions is given so that you may recognize the product, when you come in contact with it and by your evaluation of its principles and services to give it the opportunity to serve more patients more effectively and with the greatest degree of satisfaction.

Medical services are going through a constant change in form and substance, and because of the unexpected nature of the need for these services, the dollars required to offset the cost are sometimes difficult to anticipate. The efforts on the part of the business owners to help solve the problem are creating self-respecting dollars. Self-respecting dollars are America's best known value.

March, 1955.

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COUNTY SOCIETY NOTES

Cumberland

March 17, 1955

A regular meeting of the Cumberland County Medical Society was held on Thursday, March 17, 1955, at the Graymore Hotel, Portland, Maine.

Eben T. Bennet, M. D., was elected to membership.

Albert C. Johnson, M. D., of Portland, was elected a delegate to the Maine Medical Association; Paul Maier, M. D., of Portland, and Paul C. Marston, M. D., of Kezar Falls, were elected alternates.

The speaker of the evening was Mr. Walter P. Black, Enrollment Director, Associated Hospital Service of Maine. Mr. Black discussed the possibility of extending Blue Cross Benefits to medical groups such as county medical societies. This proposition sounded very attractive, and the suggestion was favorably received by the members present at this meeting.

The Society voted to approve and support L. D. 553, AN ACT Relating to Admittance of and Charges for Patients at State Sanatoriums.

STANLEY E. HERRICK, JR., M. D.,
Secretary.

Hancock

March 9, 1955

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, on Wednesday, March 9. There were eleven members and one guest present. Dwight Cameron, M. D., of Northeast Harbor, President of the Society, opened the meeting. The provisional plan of the State of Maine Department of Health and Welfare for the distribution of polio vaccine this spring was brought to the attention of the members.

Since the Society now has more than twenty-five members and is entitled to two delegates to the Maine Medical Association, M. Allen Torrey, M. D., of Ellsworth, was elected delegate and W. Edward Thegen, M. D., of Bucksport, alternate; in addition to the previously elected delegate and alternate, James H. Crowe, M. D., and Philip L. Gray, M. D.

A program committee was named by the president as follows: Mason Trowbridge, M. D., Chairman; John T. Connell, M. D., and William C. Luther, M. D.

The speaker of the evening was Samuel Epstein, M. D., of the Bangor State Hospital, who gave a very informative and entertaining talk on Trends in Psychiatry.

ARTHUR M. JOOST, JR., M. D.,
Secretary.

Waldo

March 11, 1955

A meeting of the Waldo County Medical Society was held in Belfast on Friday, March 11. The following officers were elected for 1955:

President, Seth H. Read, M. D., Belfast.

Vice President, Ernest W. Stein, M. D., Pittsfield.

Secretary-Treasurer, Raymond L. Torrey, M. D., Searsport.

Board of Censors: Foster C. Small, M. D. (2 years), John A. Caswell, M. D. (3 years).

Delegate to the Maine Medical Association, Foster C. Small, M. D., Belfast. Alternate, George L. Temple, M. D., Belfast.

RAYMOND L. TORREY, M. D.,
Secretary.

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is also valuable in the treatment of pylorospasm and spasm of the sphincter of Oddi.

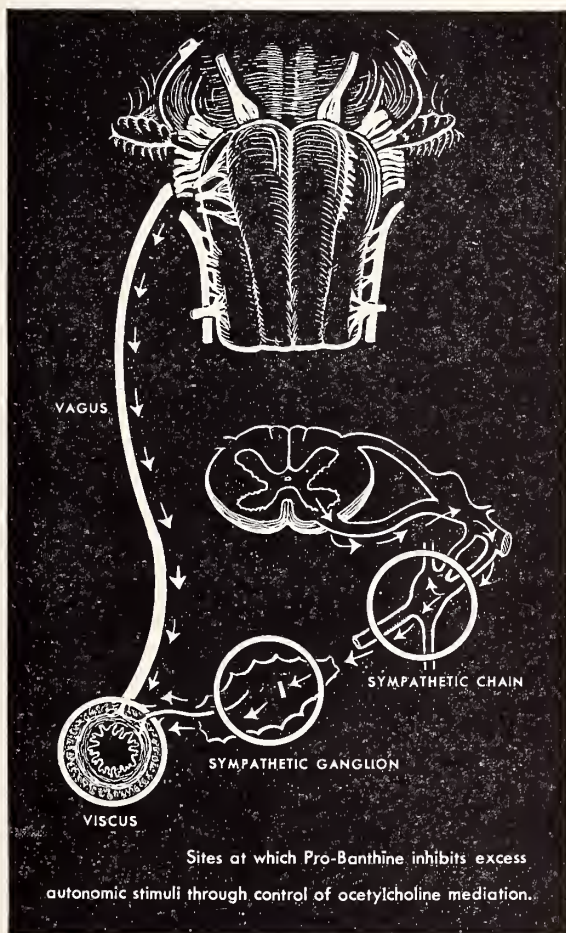
Roback and Beal² found that Pro-Banthine orally was an "inhibitor of spontaneous and histamine-stimulated gastric secretion" which "resulted in marked and prolonged inhibition of the motility of the stomach, jejunum, and colon. . ."

Therapy with Pro-Banthine is remarkably free from reactions associated with parasympathetic inhibition. Dryness of the mouth and blurred vision are much less common with Pro-Banthine than with other potent anticholinergic agents.

In Roback and Beal's² series "Side effects were almost entirely absent in single doses of 30 or 40 mg. . ."

Pro-Banthine (β -diisopropylaminoethyl xanthene-9-carboxylate methobromide, brand of propantheline bromide) is available in three dosage forms: sugar-coated tablets of 15 mg.; sugar-coated tablets of 15 mg. of Pro-Banthine with 15 mg. of phenobarbital, for use when anxiety and tension are complicating factors; ampuls of 30 mg., for more rapid effects and in instances when oral medication is impractical or impossible.

For the average patient one tablet of Pro-Banthine (15 mg.) with each meal and two tablets (30 mg.) at bedtime will be adequate. G. D. Searle & Co., Research in the Service of Medicine.



1. Schwartz I. R.; Lehman, E.; Ostrove, R., and Seibel, J. M.: *Gastroenterology* 25:416 (Nov.) 1953.

2. Roback, R. A., and Beal, J. M.: *Gastroenterology* 25:24 (Sept.) 1953.

SEARLE

York**March 9, 1955**

A regular meeting of the York County Medical Society was held at the Old Orchard Country Club, Old Orchard, on Wednesday, March 9. There were twenty-one members and three guests present. A tasty steak dinner was served at 1.00 P. M. following a very enjoyable social hour.

Samuel F. Hanflig, M. D., of Boston, gave a very interesting and instructive talk on injuries of the shoulder.

Herbert J. Hopkins, M. D., and Leopold A. Viger, M. D., were elected to membership.

C. W. KINGHORN, M. D.,
Secretary.

New Members**Cumberland**

Eben T. Bennet, M. D., 49 Deering Street, Portland.

Lincoln-Sagadahoc

Arthur H. Sampson, M. D., Damariscotta.

Mary J. Tracy, M. D., Damariscotta.

Penobscot

James D. Clement, Jr., M. D., 77 Essex Street, Bangor.

York

Herbert J. Hopkins, M. D., Old Orchard. (Former member Somerset County Medical Society.)

Leopold A. Viger, M. D., 118 Elm Street, Biddeford.

Deceased**Knox**

Archibald F. Green, M. D., Camden, November 22, 1954.

Lincoln-Sagadahoc

John P. Goodrich, M. D., Boothbay Harbor.

NECROLOGIES**Harvey Howard, M. D.****1871 - 1955**

Dr. Harvey Howard died at his home in Freeport, Maine, February 1, 1955, after serving nearly sixty years as a practicing physician. He would have been eighty-four years old February 2nd.

A son of the Rev. George and Mary Eliza Clark Howard, he was born at Woodstock, N. B., on February 2, 1871. He was educated in the schools of Woodstock, was graduated from college at Centerville, N. B., and in 1894 received his medical degree from Rush Memorial Medical School of Chicago University.

Dr. Howard moved to Freeport fifty-nine years ago to set up his first practice. He remained in Freeport for the rest of his life, except for fifteen years spent in the middle west.

He returned to Freeport, he said, because he was homesick for the sea.

In Oklahoma City he served on the medical examining board during World War I. He also resided at Albion, Nebraska, where he was medical examiner for ten years.

Dr. Howard loved horses and could tell many an interesting story of the horse and buggy days of medicine. He brought his first horse with him in a box car from his home in New Brunswick. When the horseless carriage became more practical for a busy practitioner he began driving Model T Fords and owned fourteen of them before the model was discontinued.

Dr. Howard has been honored in recent years for longevity of service; in 1944 he was presented a Fifty-Year Medal by the Maine Medical Association and in 1954 he received the Association's Sixty-Year service pin; in 1952 he was presented a Fifty-Year Medal by the Freeport Masonic Lodge.

He was a member of the Cumberland County Medical Society, the Maine Medical Association and the American Medical Association. He was also a member of the Freeport Chamber of Commerce and was active for many years in civic affairs.

Dr. Howard was a friend to many in time of need; his intimate friends testify to many good deeds which he did without thought of praise or personal gain, and they know there were countless other acts of kindness and generosity which never will be known. To his patients he was more a wise counsellor than a man of science, and many times they felt they had been aided more by his friendly advice and cheering presence than by his medicine.

With the late Dr. Arthur Gould of Freeport, he was co-founder of the town's first and only hospital, a ten-bed institution, which they ran from 1926 to 1941. Dr. Howard then ran the hospital himself for five more years. For many years, too, he was the medical examiner for the Freeport area.

Dr. Howard is survived by his widow, Mrs. Alice Parent Howard; a son, Dr. Gordon R. Howard of Los Angeles, California; a granddaughter, Miss Jean Howard; three half-brothers, William and Frederick of Easton and Joseph of Lowell, Massachusetts; and two half-sisters, Mrs. Herbert Fowler and Miss Eva Howard of Hampton, N. B.

Francis Joseph Welch, A. B., M. D.

1879 - 1955



Dr. Francis J. Welch was born in Portland, Maine, in 1879, the elder son of Thomas Joseph and Louise Deehan Welch, and here he spent his boyhood under the influence of an inspiring mother and a responsible father. Attending the Portland schools and graduating from Portland High School, he entered Bowdoin College in Brunswick, where he graduated with an A.B. degree in the Class of 1903. He took his senior year in college as his first year in the Medical School of Maine, from which he graduated in 1906 with his M.D. degree. His internship was served at St. Barnabas Hospital, Portland, under the tutelage of the late Dr. William Lewis Cousins. Soon thereafter Dr. Welch entered the general practice of medicine at 359 Congress Street, Portland. He immediately showed a preference for specialization in diseases of the chest, and with post-graduate study and keen interest he pursued further education and experience in the treatment of pulmonary disease. Dr. Welch served as Clinical Instructor in Pulmonary Disease in the Medical School of Maine from 1903 to 1913, Instructor from 1913 to 1918 and Assistant Professor from 1918 to 1922. Coincidentally with his teaching he took time to attend special courses in the medical centers of Chicago, Rochester (Minnesota), Boston and Saranac Lake. In the year 1911 he founded the Restland Sanatorium in East Parsonsfield, Maine, which he successfully operated for forty-four years as its Medical Director.

About 1915, Dr. Welch originated one of the first "T.B. Classes" in the State at the old India Street Dispensary, before the new Edward Mason Dispensary was built. He

served the clinic faithfully for forty years, visiting the regularly scheduled sessions right up to the time of his last illness. He was recognized as the most faithful attending physician in the history of the dispensary.

Dr. Welch was a member of the American Medical Association, the Maine Medical Association, the Cumberland County Medical Society and the Portland Medical Club, of which he was President in 1952-1953. He was one of the founders and a lifelong member of the Aegis Medical Club of this city.

Dr. Welch was a member of the staff of the Maine General Hospital and the Maine Eye and Ear Infirmary. He was President of the Medical Staff of the Mercy Hospital for many years and was particularly active in its foundation and construction, serving on its staff from the beginning and on its Executive Committee till the time of his decease.

Dr. Welch was a fellow of the American College of Physicians and of the American College of Chest Physicians. He was a member of the first post-graduate class of the Trudeau Clinic at Saranac Lake and an active member of the American Trudeau Society.

For years, while in college and medical school, Dr. Welch was a violinist by avocation and served for a long period of time as Concert Master of the Maine Music Festival.

Dr. Welch was a member of Theta Delta Chi in college, and of Alpha Kappa Kappa in medical school. He was also a member of the Portland Kiwanis Club, the Knights of Columbus and the Benevolent and Protective Order of Elks.

In ill health for a number of years, our brother stalwartly continued his busy routine; and up to within a few days of his last sickness, he faithfully and conscientiously attended to his large practice. He never spared himself and always gave of his best to those who sought his aid. He directed a great share of his tremendous energy and ability toward matters associated with, and surrounding public welfare. Everyone who knew "Frank" Welch recognized his excellent character, his winning personality, his scientific attainments and his tremendous pride in his profession. Only those of us who knew him intimately could appreciate his unswerving adherence to Christian principles and ideals, his greatness of heart and the affectionate regard that he had for his close friends.

In truth it may be said that Dr. Welch was a great doctor and a great teacher in every sense of those terms. His warm nature, his absolute fidelity to his friends and co-workers, his wealth of experience born of a lifetime of varied practice, his capacity for incisive and clear analytical thinking, his studious habits and systematic contact with the thought and practice of other leaders in the field—enabled him to combine in high degree the physician's art and the scientist's skill. And all these qualities contributed to making him a clinician of the finest type.

We shall all miss his cheerfulness, his friendly smile and his vigorous handshake. A great physician has gone to meet The Great Physician.

ADAM P. LEIGHTON, M. D.



ANDREW FERGUS, M. D.
Diplomate, American Board of
Psychiatry
Psychiatrist in charge

CARL J. HEDIN, M. D.
Diplomate, American Board of
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NEWS AND NOTES

Postgraduate Education in Anesthesiology

The American Society of Anesthesiologists is planning postgraduate education programs in Anesthesia for the part-time anesthesiologist. The Maine Society of Anesthesiologists requests that all physicians who are doing part-time anesthesia and are interested in postgraduate work in this field contact Dr. Oral B. Crawford, 215 Professional Building, Springfield, Missouri. A questionnaire will be forwarded requesting the physician to declare the type and extent of training preferred. The collected information will serve as a basis for planning programs for the part-time anesthesiologists of this state. This in no way obligates the responding physicians to attend these courses.

Former Member Secretary-Treasurer, Muscatine County Medical Society

Samuel Bluhm, M. D., a former member of the Androscoggin County Medical Society, is serving as Secretary-

Treasurer of the Muscatine County Medical Society in Iowa. Dr. Bluhm is located at the Muscatine County Hospital, 1501 Cedar Street, Muscatine, Iowa.

1955 Annual Meeting Maine Tuberculosis Association

The annual meeting of the Maine Tuberculosis Association will be held at the Bangor House, Bangor, on Thursday, May 5. Members of the Maine Medical Association are cordially invited to attend.

The main speaker will be Dr. Esmond R. Long of Philadelphia, director of the Henry Phipps Institute, and director of medical research, National Tuberculosis Association. He is a former editor of the *American Review of Tuberculosis*.

In the morning and during the early afternoon of the meeting day, the Maine Trudeau Society will conduct its annual sessions.

HOSPITAL NOTES

Franklin County Memorial Hospital, Farmington

Eugene C. McCann, M. D., of Portland, was guest speaker at a meeting of the Franklin County Memorial Hospital Staff

on Monday, March 14. Dr. McCann's subject was Office Gynecology. There were thirteen members of the staff present at the meeting.

PAUL E. FLOYD, M. D.

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TUBERCULOSIS ABSTRACTS*

Issued by the National Tuberculosis Association

The Treatment of Tuberculous Lymphadenitis

A Report by the Comm. on Therapy, American Trudeau Society, The American Review of Tuberculosis, November, 1954.

The treatment of tuberculous lymphadenitis has received little study since the introduction of specific antimicrobial therapy, as compared with the treatment of pulmonary tuberculosis and of other forms of extrapulmonary tuberculosis. This comparative neglect probably results from the relative infrequency of tuberculosis of the lymph nodes as a presenting manifestation of tuberculosis; and from the widespread impression that when it does so present itself, especially as an apparently localized infection of superficial nodes, it is less serious than most other forms of tuberculosis in the human.

As a consequence, the recent literature concerning the treatment of tuberculous lymphadenitis is sparse, especially with regard to the results of antimicrobial therapy. Not only is there no consensus regarding the optimum treatment, but there is scarcely any formulated opinion except that of surgeons and radiologists, who are concerned primarily with the local aspects of treatment by excision or by roentgen irradiation. A recent analysis, however, of all the patients with tuberculosis of the superficial lymph nodes discharged from the Toronto Hospital for Tuberculosis in the twenty-year period 1932-1952 indicates that this is uncommonly a localized form of tuberculosis and no longer predominantly a disease of childhood, which it was earlier, when the excisional treatment of cervical lymph node tuberculosis was perfected. The principle of the complete removal of all involved nodes and cold abscesses has been followed by more recent advocates of the surgical excision of superficial lymph node tuberculosis.

There appears to be no doubt that tuberculosis of the superficial lymph nodes can be effectively treated by excision so far as the local result is concerned. There is also evidence that roentgen irradiation is often locally effective and that, with the lower dosages recently employed, the hazards are not great. Reports of late follow-up results of these forms of treatment are limited, and there is little recognition of the possibility that superficial lymph node tuberculosis has become more commonly a manifestation of generalized tuberculosis than it was earlier. Yet in the Toronto Hospital series 88 per cent of the patients had associated tuberculosis elsewhere in the body, most commonly in the lungs and in the bones and joints.

Both the surgical and the irradiation treatments are concerned principally with cervical lymph node tuberculosis and are predicated on the conception that tuberculosis of these lymph nodes is usually a localized form of tuberculosis, of which the portal of entry is the oro-pharynx. Tuberculosis of the tonsils, either from primary or reinfection, is held in this view to be commonly associated with or, indeed, responsible for the cervical lymph node tuberculosis. Pathologic evidence that this is now frequently the case is lacking. On the contrary, there is much to suggest that cervical, no less than axillary, intrathoracic, or abdominal lymph node tuberculosis is most often a manifestation of generalized tuberculous infection.

Regardless of whether or not cervical lymph node tuberculosis is often associated with tuberculosis of the tonsil, there is little reason to think that it is frequently caused by infection with tubercle bacilli of bovine origin. Even in 1910 careful studies by Park and Krumwiede showed that infection with tubercle bacilli of human origin predominated except in the age group of less than five years.

The available literature concerning the effect of antimicro-

bial therapy indicates merely: (1) that tuberculous lymphadenitis does tend to regress under such therapy, although often very slowly; and (2) that short-term, (up to 120 days) therapy is followed frequently by local relapse or the development of active foci elsewhere. The published reports relate almost exclusively to streptomycin or streptomycin-PAS. Very few reports are available regarding long-term therapy, and even fewer regarding isoniazid therapy in this form of tuberculosis.

In view of the paucity of information regarding presently available forms of antimicrobial therapy, the Committee attempted to collect the experience of its own members and of others. The practice and experience of individual hospitals in the Veterans Administration were polled by the Committee thus adding greatly to the volume of clinical material which could be considered.

The variability in treatment was so great that no statistical analysis of results could be attempted. The practice varied from the one extreme of surgical excision or roentgen irradiation with no concomitant antimicrobial therapy to the other extreme of long-term antimicrobial or simple rest treatment with no local treatment, except in exceptional circumstances. Those hospitals which employed long-term chemotherapy were satisfied with the effect on the lymph nodes themselves and usually reported a favorable result during the maintenance of therapy. No significant data on the incidence of post-treatment relapse were accumulated. The longer that excision of superficial lymph nodes was deferred, the less frequently was it considered necessary. Sinuses usually healed, and cold abscesses regressed, although frequently with the aid of needle aspiration. No comparisons were possible between isoniazid and streptomycin-PAS since, when isoniazid was used, it was usually in combination with other drugs. One observation of special interest is that even lymph nodes which break down or first appear during antimicrobial therapy usually regress satisfactorily if the therapy is continued unchanged. This has been noted both under combined therapy and under isoniazid as single-drug therapy.

The consensus of the Committee, based on the literature and the unpublished experience which was reviewed, is that antimicrobial therapy is indicated in virtually all instances of active tuberculous lymphadenitis, as in other clinical forms of tuberculosis. The evidence indicates, however, that short-term therapy is not adequate and that long-term therapy is not yet established as independently capable of permanently arresting the disease in most instances. The extent to which excisional surgery, roentgen irradiation, and prolonged rest therapy are needed is as yet entirely undetermined. There is much to suggest that the management of lymph node tuberculosis simply as a local disease process without systemic treatment is rarely, if ever, justified at the present time. The importance of rest and sanatorium treatment should not be discounted, especially in early cases.

Obviously, there is need for more information, particularly of statistically significant numbers of patients treated in various fashions and followed for a considerable number of years. This form of tuberculosis is sufficiently important that its special problems merit particular study, and sufficiently prevalent that such study is practicable. *Prepared for the Committee on Therapy, American Trudeau Society, by Carl Muschenheim, M. D., New York Hospital-Cornell Medical Center.*

(The printing of Tuberculosis Abstracts is made possible by the cooperation of your local tuberculosis and health association.)

* From Vol. XXVIII, April, 1955, No. 4.



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No. 5

EXTERNAL DUODENAL FISTULA AND CASE REPORT

WIRT L. DAVIS, M. D.*

DEFINITION

Duodenal fistula may be defined as a communication between the duodenum and the skin surface of the body or a hollow viscus. Thus, the two types are called external and internal. The external type may be subdivided into end and lateral fistulas.

TYPES AND CAUSES

The end type of fistula follows surgery for duodenal ulcer which may be so located that satisfactory closure of the duodenum is very difficult; leakage of duodenal contents occurs from the duodenal stump following Billroth II resections. The fistulas secondary to gastric resections are produced by excessive stripping of blood supply in preparing and closing the duodenal stump. Second, there may be strangulation of tissues during closure of the stump. Third, inexact hemostasis with resultant uncontrolled or delayed hemorrhage can be followed by a fistula. Fourth, drains placed close enough for pressure necrosis may produce a fistula. A fifth factor is drawing away of fibrin from suture lines by a drain placed close to the duodenum.¹

Obstruction at the afferent inlet by kinking or encroachment of too much tissue during the anastomosis formation prevents escape of secretions of liver, pancreas and duodenum and intraduodenal pressure increases to force against the stump closure which at

this stage heals poorly with added insult.² Leakage then occurs.

The lateral type usually follows accidental injury associated with right nephrectomy, pancreas operations, and biliary tract surgery including rupture of common duct at sphincter of Oddi level. Duodenal ulcer perforation with subsequent leaking and operations about the duodenum can result in duodenal fistula. Bartlett and Lowell⁴ present a list of the variety of operations which may produce a fistula in a review of the literature from 1865 to 1937. In addition to the causes above they add drainage of an abscess in the right upper quadrant, suture of traumatic rupture of the duodenum, accidental perforation of the duodenum, resection of duodenal diverticulum, incision and drainage of appendiceal abscess and appendectomy with drainage.

Lemmon et al.³ reported a very complicated case of duodenal fistula as a final complication after cholecystitis, common duct stones and duodenal ulcer perforation. The duodenal ulcer perforation followed common duct exploration (lateral type). Then, later, after the gastric resection (Hofmeister type), the end type of fistula developed.

A fistula following trauma is due to two types of injuries. Penetrating stab and gunshot wounds and foreign bodies such as fish bones comprise the first type. The second type is due to nonpenetrating abdominal blows. The fixed duodenum may be injured and retroperitoneal abscess may drain and fistula formation then occurs.

* Surgical Department, St. Mary's General Hospital, Lewiston, Maine.

MORTALITY RATE

The mortality varies with the type of fistula. Bartlett and Lowell report a mortality in the end type of 14% (2 of 14 cases). In the lateral type the mortality was greater being 40% of 114 cases. The reason for this difference is the increased loss of fluids and electrolytes due to pouring out from the duodenum of contents following ingestion of food or liquid. After gastric resection of Billroth II type the course has been altered for stomach contents and is not constantly passing the opening. However, large fluid losses may occur in these post-gastrectomy cases.

Craighead and Raymond⁵ reported an overall mortality of 37.2% of 43 duodenal fistulas. This was divided into 4 deaths in 21 or 19.05% of internal fistulas. The mortality in external fistulas was 12 of 22 cases or 54.5%. The end type mortality was 66.6% of 8 of 12 cases while the lateral type was 4 of 10 cases or 40%. These cases occurred during 1937-1952.

Craighead and Raymond found that the lateral type fistula developed on an average of five days and the end type occurred on an average of eight days. There was an equal incidence in the anterior and posterior Polya and Hofmeister type of anastomosis. Duodenal fistula may occur several months after surgery.

Ginzburg⁶ reported the death of one in 204 gastrectomy cases due to duodenal fistula. This was due to the operation being undertaken too soon (one week) after acute pyloric stenosis. Second, the large upper border, posterior wall ulcer extended practically to the common duct. Third, marked inflammatory edema made it difficult for sutures to hold. Fourth, angulation with obstruction of the relatively short afferent antecolic loop had occurred due to pressure from the transverse colon. Finally, drainage was prevented by too tight closure around the drains. This illustrates the fact that the hard edematous friable ulcer which is deeply penetrating into the head of the pancreas or which is bordering on the common duct presents the situation where duodenal fistula is more apt to occur.

For methods of successful closure of the duodenal stump, the review of this subject by Ginzburg and the atypical closure of the duodenal stump by Nissen⁷ are recommended.

INHERENT PROBLEMS

The external fistula presents two serious problems. The first big problem is the loss of fluids and electrolytes and the resulting dehydration, azotemia, shock, avitaminosis and, finally, the development of a poor nutritional state with marked weight loss. This state can progress to death unless adequate therapy is instituted.

The end type of fistula loses pancreatic and biliary and small bowel secretion; the lateral type also loses gastric and salivary secretions. Any obstruction beyond the fistula produces a total loss of fluids. It is not infrequent that losses of fluids may be four to seven liters daily, especially in the early phase of the fistula. Duodenal peristaltic activity is increased by irritation and intraduodenal pressure goes up to 15 cm. of water and higher during peristaltic activity.^{4, 8} This explains the often observed fact that, when the patient is allowed to eat or drink, the loss of fluids externally is greater than the amount taken by mouth. With the high pressure the fluids are forced out rather than allowed to continue down the intestinal tract.

The second important problem is the digestion and destruction of the abdominal wall around the fistulous tract by trypsin activated from trypsinogen by enterokinase from duodenal mucosa.¹ The entire area becomes painfully swollen and the skin surface is digested away leaving a large raw area.

TREATMENT

Treatment of the external fistula is therefore, correction of these two basic problems. Frequent checking of hematocrit, total proteins, chlorides, CO₂, N.P.N. and, when the flame photometer is available, checking sodium and potassium is necessary in the management of the fluid and electrolyte problem. Urinary output must be maintained during the phase of excessive loss of fluids from the fistula. This should be 1000 c.c. to 1500 c.c. for removal of nitrogenous waste products. The electrolytes and fluids must be administered according to the levels of the tests mentioned above. Because of the large amount of intravenous therapy needed, intravenous cut-down may be required. Blood and plasma may be needed for supportive therapy and as a method of keeping up the proteins. Following the patient's weight furnishes information about the general condition of the patient for fluid therapy and positive nitrogen balance.

Calories furnished by carbohydrates are needed for their "protein sparing" effect. Fluids should be given at a rate corresponding to utilization; 30 drops per minute will prevent urinary spillage.⁹ This applies to amino acids and carbohydrates other than invert sugar. The protein hydrolysates with glucose and/or alcohol will furnish more calories per volume in helping to maintain the patient. Careful intake and output records are helpful in maintaining these patients.

Large doses of vitamins¹⁰ are needed as in extensive burns 1000 mgm. of vitamin C, 50 mgm. of thiamine, 50 mgm. of riboflavin and 500 mgm. of nicotinic acid are valuable in these cases. Two c.c.'s of liver extract may be given every day or every

other day. Vitamin K should be given according to the prothrombin level.

Allowing the patient to eat and drink aggravates the condition. Elimination of positive intraduodenal pressure is a very important principle of treatment. The loss of fluids by the fistula is increased so that the cycle is a continuous one. By allowing nothing to be taken by mouth (swallowed) the amount of drainage is decreased. In the lateral type of fistula a tube should be passed by the nose to the site of the fistula to draw off fluids this way rather than let them pass out and continue digestion of the abdominal wall. In the end type, if there is obstruction at the efferent outlet, the passage of a tube into the stomach is required. However, if there is obstruction at the afferent inlet, the tube placed into the stomach will be of little value.

TREATMENT OF SKIN

Treatment of the digested skin and collecting the drainage at the fistula (cutaneous opening) is very helpful in making the patient more comfortable. Removal of the drainage by a tube or catheter placed in the region of the duodenum is a useful procedure. If the duodenal closure at the time of the operation is not entirely satisfactory because of edema, then drains may be placed in Morrison's pouch and, if extensive drainage develops, the drain may be replaced by a rubber tube with three or four holes placed in the sides of the tube at the lower end. If no drainage has been provided and leakage occurs, reoperation for establishing external drainage will be necessary.

A modified McCollum tube¹¹ with suction applied may be useful in accomplishing the first aim of removing by dependent drainage or by suction all of the drainage possible. Bartlett and Lowell⁴ feel that the important factor is keeping the wound dry to prevent prolonged contact of the wound with the duodenal contents.

Another principle which may be utilized in preventing mechanical contact of the drainage with the wound is positioning the patient upside down on a Bradford frame or divided mattress to allow drainage to fall away from the tissues. It is often helpful to protect the skin by using such substances as aluminum paste to cover a broad area around the fistula. Covicone may be helpful if applied early. Neutralization of the ferments can be done by using a paste of amino acids and starch and sufficient water. This paste can be applied immediately at the site of the fistula. Peptone powder, beef juice, egg white and dried milk also can be used for the same purpose. Inactivation of tryptic ferments by producing an acid medium can be accomplished by using wound irrigation with 5% tannic acid or N/10 hydrochloric acid. Mechanical absorption of ferments may be done by finely divided charcoal, kaolin, bronzing powder, amphojel or gelusil.

SURGICAL TREATMENT

A direct surgical attack in the early phase is condemned in the end fistula and in most cases the lateral fistula also. The tissues are friable and sutures will not hold. Supportive therapy must be carried out. Surgery for drainage may be necessary as mentioned. Jejunostomy¹² is a surgical procedure of value and may be necessary to maintain the patient's intake of fluids and calories of approximately 3000. Intravenous therapy can be continued over a long period but jejunostomy feeding will maintain the patient more satisfactorily. Other operative procedures which may be applicable are, first, gastro-jejunostomy and closure of fistula; second, gastro-jejunostomy, fistula repair and duodenal interruption; and, third, excision and closure of fistula with other indicated procedures. These procedures will vary with the etiology of the external fistula.

CASE REPORT

No. 54-3713—A 52-year-old male was admitted to S. M. G. H. on November 10, 1954, with a history of peptic ulcer for seven years. (Definite X-ray evidence of prepyloric ulcer was found on January 15, 1950.) He began to have increasing bloating and epigastric distress two months before admission. One week prior to admission, he was found to have cholelithiasis and a penetrating duodenal ulcer. He had tenderness on palpation of the epigastrium. Pulse rate was 100 and prostate was enlarged 2+.

Laboratory tests on admission showed W.B.C. of 13,500 with 60% polymorphonuclear cells. Hemoglobin was 14 gm. and R.B.C. was 4,730,000. N.P.N., sedimentation rate, urinalysis, cephalin flocculation, icterus index and total protein and A/G ratio were normal.

On November 18, 1954, a subtotal gastric resection of Billroth II Type, ante-colic and isoperistaltic, was done using a short loop of jejunum and resecting 70% of stomach. The duodenum was difficult to close because of edema and the ulcer was located posteriorly at the upper border of the duodenum almost to the common duct. The gallbladder was removed and the common duct was exposed completely to the ulcer during the dissection of the duodenum.

By the evening of the first post-operative day, he had atelectasis at the right base and bronchopneumonia at the left base as shown on X-ray film. The mucous was raised with difficulty. Tracheal suction and steam inhalation were used. Coughing was very vigorous and thrombosed hemorrhoids developed on the third post-operative day. On the sixth post-operative day, extensive bloody drainage appeared from the right half of the transverse abdominal incision. Secondary closure was done on November 24, 1954, using silk #1 (loop within a loop). The transverse and descending colon were distended

tions. Dependent drainage removed the fistula contents successfully and the wound was protected with aluminum paste. Covicone (plasticized protective cream by Abbott Laboratories) may be easier to apply and use than this paste. A flame photometer facilitates measuring sodium and potassium and would have helped in this case.

SUMMARY

A discussion and case report of the difficulties associated with external duodenal fistula are presented. The essentials of treatment are skin protection, drainage of the activated duodenal contents, maintenance of fluid and electrolytes and jejunostomy.

REFERENCES

1. Albright, Hollis L., and Leonard, F. C.: Duodenal fistula. Problems in Management. *Ann. Surg.*, 132:49-63, 1950.
2. Wagensteen, O. H.: *Intestinal Obstructions*, 2nd ed., p. 232. Springfield, Ill., 1945, Charles C. Thomas.
3. Lemmon, W. T., Paschal, G. W., Jr., Brody, W., and Hager, H. G., Jr.: Common duct stones causing jaun-

dice; cholecystitis, hepatic duct stones, duodenal ulcer and duodenal fistula as complications. *Am. J. Surg.*, 62: 253-257, 1943.
4. Bartlett, M. K., and Lowell, W. H.: Acute Post-operative Duodenal Fistula: report of 12 cases. *New England J. Med.*, 218:587-594, 1938.
5. Craighead, C. C., and Raymond, A. H. St.: Duodenal fistula. *Am. J. Surg.*, 87:523-533, 1954.
6. Ginzburg, L.: Management of the Difficult Duodenal Stump. Technical Considerations. *S. Clin. North America*, 34:473-493, 1954.
7. Nissen, R.: *Duodenal and Jejunal Peptic Ulcer*. New York, Greene and Stratton, 1945.
8. Perl, J. I.: Treatment of External Duodenal Fistula. *Am. J. Surg.*, 30:176-181, 1935.
9. Tui, C., Kuo, N. H., Chuachiaco, M., Rosh, R., and Mulholland, J. H.: Protein Nutrition in Cancer. *S. Clin. North America*, 44:472, 1949.
10. Levenson, S. M., Green, R. W., Taylor, F. H. L., Robinson, P., Page, R. C., and Johnson, R. E.: Ascorbic Acid, Riboflavin, Thiamin and Nicotinic Acid in Relation to Severe Injury, Hemorrhage and Infection in the Human. *Ann. Surg.*, 124:840, 1946.
11. Thorstad, M. J.: The Conservative Treatment of Duodenal Fistula. 119:770-773, 1944.
12. Snyder, F.: Closure of Duodenal Fistula. *Surgery*, 18:562-568, 1945.

MEDICAL MANAGEMENT OF MASSIVE GASTRIC HEMORRHAGE

BERTRAND BELIVEAU, M. D.*

There are several causes of massive gastric hemorrhage, but the most common is bleeding from a duodenal ulcer and to this cause I will limit this paper.

Approximately one-third of all patients who come to operation for peptic ulcer have hemorrhage as the indication for operation. Because the pathogenesis of the disease involves the digestion of the blood vessel wall, hemorrhage from a peptic ulcer becomes more serious in older people. In older people the blood vessels are much more inelastic and less capable of bringing the bleeding under control.

SIGNS OF HEMORRHAGE

When a large amount of blood is suddenly lost from the stomach it may appear first as vomited blood or as tarry or even red stools. Often, however, the initial symptom may be fainting and air-hunger, followed only after hours by the first visible blood; during this period occur the usual signs of shock; pallor, sweating, thirst, rapid thready pulse and a drop in blood pressure.

GENERAL TREATMENT

It is the belief today that the best immediate treatment is the conservative one. This is borne out by a mortality in massive gastric hemorrhage of only 4%.

* Chief of Department of Internal Medicine, St. Mary's General Hospital, Lewiston, Maine.

All patients with upper gastric intestinal hemorrhage should be admitted to the medical service, but our surgical colleagues should be promptly notified of such admissions and see these patients with us within four hours. This is one condition where the surgeon and internists *must* work as a team.

Our interests are directed toward the following: (1) Treatment of shock and restoration of adequate circulating blood volume. (2) Medical control of bleeding. (3) Study of the patient for evidence of significant complications including systems other than the gastrointestinal tract.

Before the advent of available parenteral fluids the physician was faced with a greater dilemma than he is today; to move or not to move the bleeding patient. We were taught that such a patient should be kept quiet; if we transported him to the hospital and he bled enroute one felt that it was because he was moved; if he was left at home, however, and another hemorrhage occurred, he might exsanguinate. Now he should always be taken immediately to a hospital where plasma, blood and oxygen are available, and a team of trained workers is waiting.

IMMEDIATE TREATMENT

- 1. Raise blood volume by plasma, glucose and with blood.
- 2. Supply the lungs and brain with oxygen.
- 3. Use all available anti-shock procedures.

4. Do not treat the patient for shock who is not in shock.
5. Allay the patient's fears.

An infusion of 5% Glucose in normal saline should be promptly begun and the patient's blood cross-matched. I believe that blood transfusions are the essential backbone of therapy and should be administered as soon as cross-matching can be performed and at a speed and volume necessary to maintain the hemoglobin content above 10.0 gm. per c.c. and the red cell count above 3,500,000. This insures an adequate blood volume reserve so that, should bleeding recur, irreversible shock will not appear. It is neither safe nor desirable to keep the patient's blood pressure low in the hope that this will aid hemostasis. Blood transfusions must be kept going at a rate which maintains the patient's pressure at or near normal. Morphine has no place whatever in the treatment of shock; barbiturates should be used in preference. Morphine is very apt to evoke vomiting and should rarely be used as it causes gastric hypersecretion and hypermotility. The application of external heat does nothing but produce cutaneous vasodilatation at a time when it is much to the patient's advantage to have cutaneous vasoconstriction. The single most helpful procedure, in addition to the administration of blood, is the use of oxygen. This can best be given by nasal catheter at 7-8 liters per minute. This is of great value in preventing the severely shocked patient from slipping into the irreversible phase.

MEDICAL CONTROL OF BLEEDING

There are two schools of thought, one believing in

starving and the other in feeding the bleeding ulcer. Against immediate feeding are the facts that; (1) the empty stomach is quiet, shows little peristalsis and (2) little gastric secretion; (3) there may be unrecognized obstruction and continued secretion as well as hemorrhage. Proponents of feeding, on the other hand, believe (1) that as long as there is blood in the stomach, gastric juice will be secreted to digest it; (2) peristalsis of the Carlson hunger type will occur if no food is given; and (3) that protein and fluid balance can best be maintained by bland frequent feedings.

It is the belief today that each case should be treated individually; if there is a history suggesting obstruction such as night pain and vomiting, no food should be given for 24-48 hours while fluids and proteins are given parenterally. However, if patients complain of pain during this period of starvation, milk in 1-2 ounce feedings may be given hourly, even followed by small alkaline powders during the night. In either case soft feedings may be given in gradually increasing amounts after the third day.

For the best results in the immediate control of hemorrhage and final medical or surgical therapy, each patient should be considered as an individual and treated with the whole patient in mind.

REFERENCES

- Treatment of Massive Gastric Hemorrhage due to Peptic Ulcer. *J. A. M. A.*, 113:373 (July 29, 1939).
 The management of upper gastrointestinal hemorrhage. *Ann. Int. Med.*, 39:241-253, 1953.
 Indications for surgery of the upper gastrointestinal tract. *N. E. J. Med.*, 250:445-452, 1954.
Medical Clinics of North America, January, 1954.
Medical Clinics of North America, January, 1953.

Suggested Amendments to the By-Laws of the Maine Medical Association*

Chapter V, Sections 7 and 8, and Chapter VII, Section 3, paragraph 1, shall be amended as follows:

CHAPTER V

Section 7. The Council may employ an Executive Secretary a Director, who need not be a physician nor a member of the Association.

Section 8. The salaries of all employees of the Association shall be fixed by the Council, and the

salaries and duties of the Secretary and Executive Secretary Director shall be fixed by the Council.

CHAPTER VII

Section 3 (paragraph 1). The Committee on Legislation shall consist of five (5) members. All matters of professional interest to this Association which require action by the State Legislature shall be referred to and considered by this Committee. It shall act as advisor to the Executive Secretary when he is engaged as Legislative Counsel and Agent for this Association Director and the Legislative Counsel for this Association.

* Action on these will take place at the meeting of the House of Delegates on Sunday, June 19th, at The Samoset, Rockland.

RETRACTORS FOR VAGINAL SURGERY

ALCID F. DuMAIS, M. D.*

INTRODUCTION

The author wishes to acknowledge the important role played by Dr. L. Sweatt in the evolution of the retractors presented in this paper. His contributions were helpful on several scores. When I joined the staff at St. Mary's General Hospital, Dr. Sweatt was the sole owner of a similar set of instruments made up of two retractors. These retractors were available to any member of the surgical staff that wanted to use them and he was always ready to give freely of his time to teach the operator their proficient use.

In the last two years, a number of retractors¹ were ordered constructed by both Dr. Sweatt and the author. These instruments featured blades of different lengths, thicknesses, and widths. The application as well as adaptability of these different retractors under varying situations were observed. The information thus secured, was exchanged freely amongst ourselves in order to determine which of these retractors would provide the surgeon the maximum practical qualities. Dr. L. Sweatt's constant interest, encouragement, and informative past experiences on this topic gave us valuable help and saved us from a number of expensive pitfalls. The instruments found and considered best for vaginal surgery as well as the reasons for these conclusions are discussed in this article.

The need to increase the number of retractors to three per set from the original number of two per set; became apparent when the more extensive procedures, such as, vaginal hysterectomy, repair of the markedly relaxed perineum with prolapse, etc., were performed. This necessity was particularly accentuated in the obese patient or those with severe prolapse of the perineal tissues. The redundant tissues would bulge in the operative field and preclude adequate visualization of the operative site by the operator. To overcome some of these deficiencies, additional retractors such as narrow or wide Deavers, malleable straight blade retractors, self-retaining retractors, etc., were used; however all proved inadequate. This was a result of anatomical differences as well as degree of pathology found for each individual case. Our goal was to devise retractors to be used in the performance of vaginal surgery that would be capable of giving the surgeon the maximum exposure, leave the operator free of any obstruction or impairment in his motions, and provide instruments with a

wide degree of adaptability for the altered and distorted tissue planes that were encountered. The author feels that this aim has been achieved in the formulation of the instruments discussed in this paper. The specific application of these retractors to any individual operative procedure by the vaginal route is not considered germane to this discussion. These writings are primarily concerned with a discussion of those aspects of the retractor that deal with their construction and a brief list of those functional properties considered advantageous to the surgeon when these instruments are used in vaginal surgery.

CONSTRUCTION

Stainless Steel (No. 316) was selected as the metal of choice. The metal was coated with No. 4 Micro-finish. This processing provides a mirror finish and a satin texture to the metal resulting in a very smooth surface. This surface processing serves to facilitate their cleansing, protects the metal from any noxious agent that might impair their metallic qualities and provides a highly reflective surface. The metal is light in weight, not easily flexed by ordinary pulling and offers the assistants excellent prehension qualities. The thickness of the blade is $\frac{1}{8}$ " and the width is 1". The radius of the round edges is $\frac{1}{16}$ of an inch. The average length of the retractors are 13" end to end. The length of the bent blades are respectively 2", $2\frac{1}{4}$ ", $2\frac{1}{2}$ ", 3". The analysis of the stainless steel is as follows: .10 maximum of carbon; Chrome 16.00 to 18.00; Nickel, 10.00 to 14.00; Molybdenum 2 to 3%; and Manganese, 2%. A reproduction of these instruments can be seen in Figure 1.



FIGURE 1

Note the differences in the length of the bent retracting blades at points marked 1, 2, 3.

* Senior Surgeon, Surgical Staff of St. Mary's General Hospital, Lewiston, Maine.

1. Address: Retractors made by Printomatic, 23 Cedar Street, Lewiston, Maine, by Romeo Herow.

ADVANTAGEOUS FUNCTIONAL PROPERTIES OF RETRACTORS

The instruments under discussion are not educated tools and do not in any way alter the prerequisites considered essential to the performance of good vaginal surgery. The facts are:

1. Vaginal surgery should be attempted by operators who are cognizant of the numerous technical procedures available so that the patient submitted to this form of surgery can be properly benefited.
2. These cases should be selected with judicial care and given proper preoperative evaluation.
3. The operator should possess a sound anatomic knowledge of the perineum.

These facts remain of primary consideration. Ways and means of securing good exposure at the operative site can only be considered secondary to the aforementioned primary factors. Of the numerous instruments employed by the surgeon to obtain adequate exposure, good retractors constitute an important aid.

The retractors presented herein possess a mirror finish that provides excellent light reflection. This permits a maximum degree of illumination as well as concentration of light to fall on all portions of the operative field. Few will deny the desirability of this feature in vaginal surgery.

The length of the shaft that exists between the bent retractor blades is such as to completely clear the operative area and allows unlimited freedom of motion to the operator. By the same token, excellent leverage and prehension are offered the assistants. This last feature provides the surgeon with better and prolonged exposure of the operative area if needed, since the marked physical strain on the assistants is considerably reduced.

The variations in the lengths of the bent blades as well as the doubling of these on the same shaft serve a number of useful purposes. It places a number of retractor blades of differing lengths at the quick disposal of the operator. These variations encountered in the length of the vaginal axis are easily accommodated. This adaptability holds true whether the changes are the result of disease processes or become necessitated by the demands of a constantly changing operative pattern. All of these factors tend to eliminate unnecessary motions and save time without sacrificing any part of the exposure needed in the operative area.

A number of special retractors are offered for vaginal surgery. Self-retaining retractors; supposed to do away with assistants, can hardly be considered adequate. If one will stop for a moment and consider the great number of changes required in the positioning of retractors in a procedure like vaginal hysterectomy; one will soon admit that self-retaining retractor

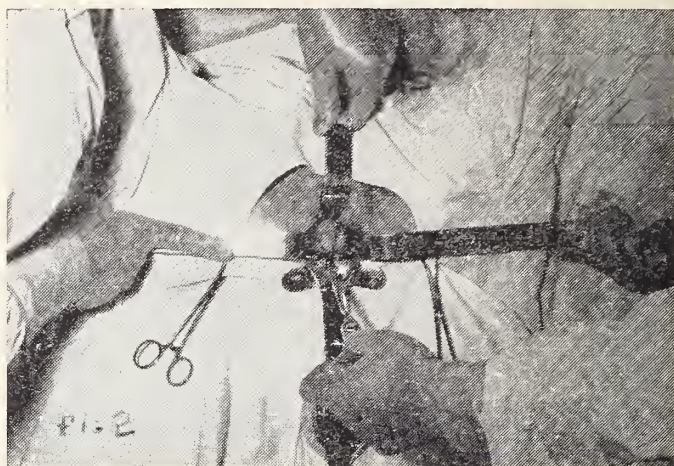


FIGURE 2

Note that at onset of procedure short blades serve to give excellent exposure and provide adequate retraction.

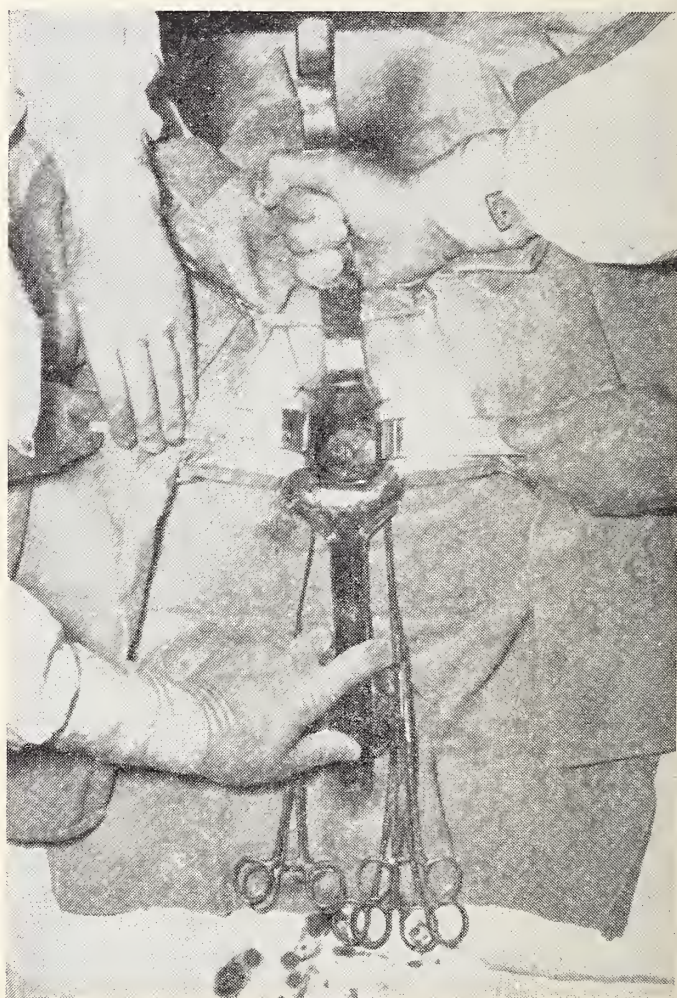


FIGURE 3

After removal of uterus and freeing bladder one notes that repair of perineo-pelvic tissue demands bent retractor blades with longer axis if adequate exposure is to be obtained.

tors are at best, a poor substitute. Compare the first step in the procedure in Figure 2 with that in Figure 3. It becomes obvious that whenever possible retractors should be held by human hands so that maximum adaptability to the operative demands can be immediately instituted.

REMARKS ON APPLICATION

Whenever we use these retractors for major procedures via the perineo-vaginal route, a Wade speculum retractor is usually employed to retract the posterior vaginal wall. Following placement of Wade

retractor along posterior wall of vagina, the retractor blades are placed and positioned along the anterior vaginal wall as well as the lateral walls of the vagina as shown in Figures 2 and 3.

SUMMARY

1. A set of retractors for use in vagino-perineal surgery is described.
2. The advantages inherent to these instruments and functional properties that make it a valuable aid in vaginal surgery are briefly mentioned.

ROENTGENOGRAPHIC EXAMINATION OF THE GALL BLADDER

JOHN T. KONECKI, M. D.*

INTRODUCTION

It is my conviction that the average Radiologist is called upon to discuss the X-ray examination of the gall bladder and the report of this examination more than any other single diagnostic examination. Much of this discussion arises from a number of slight misconceptions of the scope and nature of present gall bladder studies. The gall bladder examination varies but little between hospital X-ray departments according to particular practices and preferences of the radiologist.

We have developed a technique of examination of the gall bladder at St. Mary's Hospital which we have found ideal for our situation (and I believe demonstrates gall bladder pathology in a higher percentage of examinations). There is nothing new in any of the elements of the technique as used. Some of the procedures have been utilized for many years on occasion by many Radiologists and Gastroenterologists. The main variation to our technique is that all gall bladders are routinely fluoroscoped. This routine is not exclusive to St. Mary's Hospital. There are several Radiologists in New England that routinely fluoroscope all gall bladders. We have kept a record of gall bladder studies done at this hospital for the past year and find that we not only have increased the number of positive gall bladder reports but have also saved considerable time in the department and for the patient. Of no small importance, we have also saved money in the cost of film as well as time and labor.

PROCEDURE AT ST. MARY'S HOSPITAL

In the past three years there has been a relative increase in the number of examinations of the gall bladder. This is in part due to Hospitalization Insur-

ance and an increase in admissions for diagnostic studies only. The usual complete gastrointestinal examination takes three days; one day for barium enema, one day for gall bladder examination, and the third day for the barium meal. In our department, we accomplish this in two days. The barium enema is done on the first day, and the gall bladder examination is done at the same time as the barium meal on the second day.

Our gall bladder routine is as follows:

1. One 10 x 12 film is taken in the right anterior oblique position with patient lying on table. (A 8 x 10 film can be taken in small or thin patients.) These are all seen at one time by the radiologist before fluoroscopy.
2. When the patient is in the upright position at the start of the barium meal, four spots are taken on the fluoroscopic spot device in varying degrees of obliquity through the pressure cone. At this time, if there is overlying gas, barium, or gall bladder dye in the intestines, it is pushed aside by the palpating glove or pressure cone. Out of these four small coned spot exposures it is quite easy to get at least one or two unobstructed and clearly defined views, which as a rule are far sharper in detail than the blindly positioned views of the usual gall bladder technique.
3. Barium is then taken by the patient for the barium meal study of the upper gastrointestinal tract.

The total time consumed for the initial prone film and the four spot exposures averages a total of five minutes and two films expended (one 10 x 12 and one 5 x 7). As a result we have five views of the gall bladder. The conventional examination calls for two oblique prone films and one upright film and one

* Radiologist, St. Mary's General Hospital, Lewiston, Maine.

post "fatty meal" film or four views of the gall bladder which often have to be repeated and watched individually by the radiologist. We have found that this takes about thirteen minutes of the technician's time on an average and an expenditure of at least four 11 x 14 or 10 x 12 films.

We have often been asked why we do not do any post "fatty meal" films. The answer is that the main reason for a "post cibum" film is to find small radio-lucent stones in a contracting gall bladder that would ordinarily be obscured by the density of the dye in a full gall bladder. With compression cone spots this is not necessary as stones less than 3 mm. in diameter can easily be seen.

DETAIL IN FILMS

An example of the detail observed is given in Fig. 1, showing a gall bladder which on the routine film shows a good concentration of dye in an apparently normal gall bladder with no evidence of stones. In Fig. 1 (a), we see four exposures in different degrees of obliquity with definite small stones of the "gravel" variety. Some of these stones are only 2 mm. in diameter. The stones have gravitated to the inferior tip of the gall bladder where they are easily seen.



Fig. 1

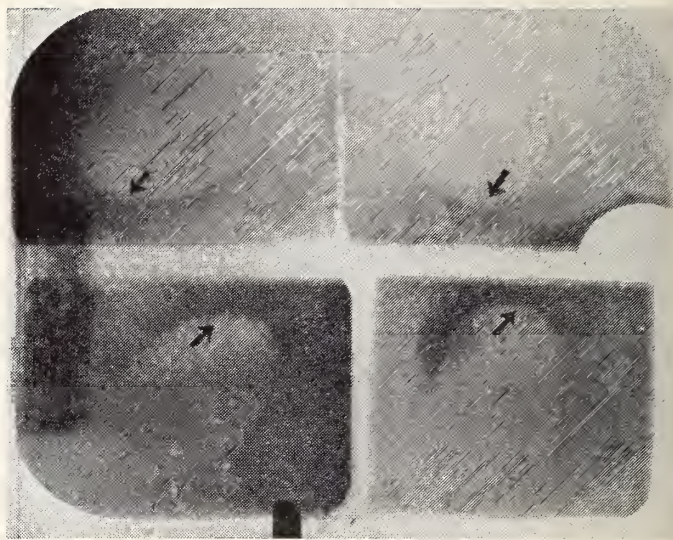


Fig. 1a

A second example of extremely small stones which are not seen on conventional films is in Fig. 2, where we see an apparently normal gall bladder with excellent concentration of dye. The four spot exposures in Fig. 2 (a), show a layering of these stones "floating" on a layer of concentrated bile as described by Akerlund¹ and Ettinger.² We have encountered this peculiar layering of stones in 12 cases in the past year (1954) out of 534 examinations.

USE OF DYE

There have been many orally administrated dyes in use in recent years for cholecystography. The most recent and most popular one used at present is Telepaque (3- [3 amino—2,4,6 triiodophenyl])-2- ethyl proprionic acid. We find that Telepaque gives a more dense shadow and relatively few and slight side effects. The dosage used is that recommended by the manufacturer (Winthrop-Stearns).³ As stated by Miller,⁴ there is a greater percentage of cases with visualization of the gall bladder on initial examination than with other dyes and a lesser necessity for repeat studies.

This gives rise to the question of non-visualization of the gall bladder. We have found that non-concentration of dye on the initial study is not of diagnostic importance. We repeat the study after giving the patient a fatty meal. If no visualization is seen, it is then reported as "no concentration of the dye is seen in the gall bladder." This does not mean that a pathological gall bladder exists as there are many causes for non-excretion and non-concentration of the dye.

The reason for the fatty meal before re-examination is that in many instances, the patient has been on a voluntary or physician prescribed non-fat diet which does not stimulate the gall bladder to contraction and therefore allows the bile to be inspissated and concentrated in the gall bladder, thereby interfering with concentration of dye.

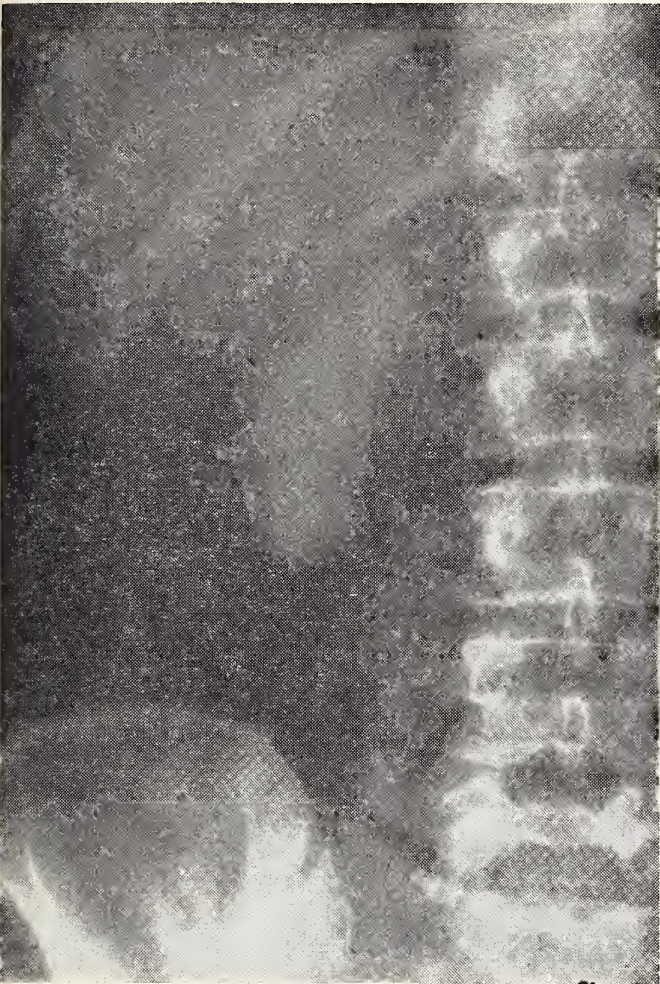


Fig. 2

When we see no dye in the gall bladder, a fatty meal is given to the patient or prescribed as soon as possible and then a repeat dose of dye tablets is given. In 538 gall bladder examinations we found 33 cases (18%) where non-visualization of dye was encountered and on repeat study showed normal concentration.

CONCENTRATION OF DYE

The causes for non-concentration of dye in the gall bladder are many, as previously stated:

1. Telepaque is a fatty acid with iodine (66.68%) bonded to the complex proprionic acid. We know that fatty acids are absorbed by the upper small intestine, and any situation that prevents dye from reaching the small bowel will cause non-visualization of the gall bladder, i.e. failure to take the dye, vomiting of the dye, and pyloric obstruction.
2. As the dye is a fatty acid, the presence of bile and pancreatic lipase is necessary for absorption; therefore common duct obstruction or pancreatic disease or obstruction will prevent absorption.
3. Diarrhea causes the rapid passage of the dye

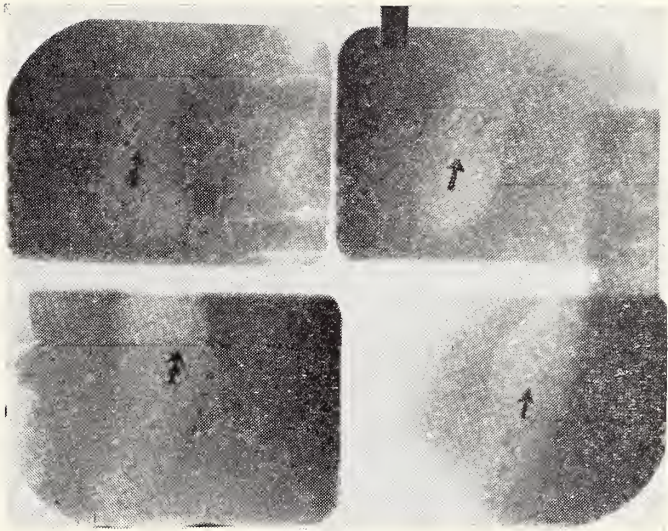


Fig. 2a

through the intestine and may prevent absorption.

4. Diseases of the liver may by alteration of function cause the dye to be secreted too slowly to be visualized or may fail to take up the dye from the blood stream.
5. Obstruction of the biliary ducts, as in malignancies, for mechanical reasons may prevent the passage of the dye into the gall bladder.
6. Lastly we have abnormalities of the gall bladder itself which may cause failure of concentration of the dye in cases of gall bladder pathology.

With the above reasons for non-visualization of a gall bladder, it is obvious that a report on a cholecystogram stating "no concentration of dye seen in the gall bladder" does not mean that a pathological gall bladder exists. The report then must be considered as a laboratory fact that has to be weighed with the other clinical findings on the patient.

SUMMARY

A technique of a rapid and effective method of examining the gall bladder is presented.

Certain aspects of the meaning of non-visualization of the gall bladder concentration are discussed and reviewed from a physiological viewpoint.

REFERENCES

1. Akerlund, Ake: Layered Gall Stones in the Gall Bladder, *Acta Radiologica*, 19:23, 1938.
2. Ettinger, A.: Visualization of Minute Gall Stones (Layer Formation of Bile), *American Journal Radiology*, 35:656, 1936.
3. Telepaque: A New Cholecystographic Medium, Laboratory Data, Dept. of Med. Research, Winthrop-Stearns, Inc., 1450 Broadway, N. Y., June 22, 1950.
4. Miller, Clark F.: (Use of Telepaque in Cholecystography), *New England Journal of Medicine*, 248:709-712, 1953.

LOW BACK PAIN

PAUL J. FORTIER, M. D.*

Low back pain is probably the complaint most frequently heard at the office of an orthopedic surgeon. Most everyone at one time or other will experience a backache that usually subsides in a day or two without seriously interrupting normal activities, or requiring a doctor's services. The fact that this condition is very common does not mean that we are dealing with a simple problem. A great deal of publicity has been given to the herniated nucleus pulposus, commonly called ruptured disc or herniated disc, and it is frequently the cause of low back pain, especially when the pain radiates to one or both legs, but there are numerous other causes simulating the so-called disc syndrome. Some are found easily, but in other instances it is difficult to find the proper etiological pathology.

VARIOUS CAUSES

Cord tumors producing pressure will cause a radiculitis and simulate a posterior disc protrusion. Several lesions that do not cause pressure on the nerve root may also give nerve root phenomena, pain and physical findings similar to nerve root pressure. Frequently, these lesions will be at a distance from the spine and therefore, are not seen in a myelography.

Lesions of the spine itself simulating a herniated disc are many. Let us mention tuberculosis, metastatic carcinoma, spondylolisthesis, osteoarthritis, partial or complete tear of interspinous ligaments. More than once, fractures of the articular facets have been mistaken for herniated discs because these are not always easy to demonstrate even with good anteroposterior, lateral or oblique films.

Again in the same region of the back, the avulsion of a muscle or a sacro-iliac sprain will give an impression of a ruptured disc.

Lesions of a neurogenic nature like herpes zoster, cord degeneration, or even a sciatic nerve trauma will also give the impression at first that the patient thusly affected has a herniated disc.

Multiple are the abdominal lesions that can give the impression of a herniated disc, especially lesions located in the pelvic region. Worth mentioning are carcinoma of the prostate, tumors of the rectum, almost any disease of the uterus or its adnexae. So much that we think any woman should have a good gynecological examination before going through surgery for a herniated disc, even when this condition is clearly demonstrated by a positive myelogram study.

* Orthopedic Surgeon, St. Mary's General Hospital, Lewiston, Maine.

ILLUSTRATIVE CASE

A typical example of a condition simulating a herniated disc was seen in a 53-year-old white male about a year ago. This man was complaining of low back ache of two or three months duration. The pain was radiating to his right lower extremity. There was some atrophy of his right buttock. The right thigh also showed some atrophy by actual measures. Straight leg raising was limited to 60° on the right, normal on the left. The knee jerk was also increased on the right side, however, the tibial nerve sign was negative. Coughing and sneezing did not increase his pain, sensation to dull and sharp objects was entirely normal and comparable to that of opposite leg. A family physician treated him conservatively with application of heat to low back and aspirins for pain.

As his condition was not improving, but on the contrary was getting progressively worse, we had the occasion of examining him and found that he had been troubled for some years with a large indirect inguinal hernia which he had been supporting with a truss. He was referred to his surgeon and further investigation was made in his case. Three months later, patient died of a cancer of the kidneys.

CAREFUL HISTORY ESSENTIAL

No need to say that a good examination is of absolute necessity, and this should start with a careful history, no matter how tedious it may be. Some estimate that 75% to 90% of diagnoses can be made by a careful history. It is important to know about the onset of the pain, if it followed a trauma or not, what was the immediate reaction of the back, was bed rest necessary then or later, had there been previous attacks and if so, how long had these lasted and how were they relieved?

Is the pain continuous or intermittent, is it relieved by bed rest, or does it awaken patient from a sound sleep? Is it still present in the morning as a dull ache, and does the patient have difficulty to get out of bed? Is that pain only caused by motion?

THOROUGH EXAMINATION

Certainly it is unwise to try and make a diagnosis without a good physical examination of the back and lower extremities. Hit or miss treatments should not be tried, then label these patients as neurotic if they still complain of pain. Justly or not, these patients will run to cultists for relief and how could we blame them?

We like to make the patient walk fully dressed and notice his gait. See if he is limping or not, or favoring one extremity. We make him sit down and observe if he gets up easily or needs to brace himself on the chair or on a table. Then the patient has to remove all his clothes. If the patient is a woman we tie a sheet around her neck and let it hang in front of her.

We then proceed with the examination of the back, note if there is some deformity of the spine, and if so, whether it is mild or severe. If a scoliosis is present, we look for some decompensation or rotation of the spine. By palpation and percussion we try to locate any tender area if present. Motion of the spine follows, checking any limitation in flexion, extension or bending to right or left side. Does motion increase pain or not?

Frequently, a lumbar scoliosis, also called a sciatic scoliosis, is present. This is usually seen in a herniated lumbar or lumbo-sacral disc. Is there some atrophy of the buttocks? The patient now sits on the side of the examining table, knee and ankle jerks are checked. With the patient flat on his back on the table we measure thigh and calf bilaterally for possible atrophy, then we look for the several signs which will frequently make us decide on the proper diagnosis. These consist of straight leg raising, compare the degree of limitation if any, look for Goldthwaite, Faber, Ober and tibial nerve signs.

With a safety pin, one tests sensation over the anterior and lateral thigh and very carefully over the lateral aspect of the calf and dorsum of the foot. Complete distribution of dermatomes are usually well given in any book of anatomy. Any decrease of sensation in a definite area will help localize the root or the area of the spinal cord where pathology is to be found.

TREATMENT

As the treatment is for the pathology and not simply for the symptom of pain, it will vary almost as much as the multiple causes of low back pain. If the

problem is not of an orthopedic nature, we advise the patient to return to his family physician or to the Gyn., G.U. or general surgeon, according to the nature of his pathology.

Treatment will also vary even if we are dealing with an orthopedic problem. Whereas physiotherapy and massage may be quite beneficial to the patient with a low back sprain, it certainly will do him no good if his pathology is a spondylolisthesis or other spine deformity, or malignancy.

For a period of ten years during 1940 to 1950, there has been too much surgery done for herniated discs. We know very well that most patients with a herniated disc will recover with conservative treatments, such as bed rest with a fracture board under his mattress, physiotherapy, medication for pain and the use of a well-fitting support. In fact, it is estimated that approximately 80% of these patients will be able to return to work in four to six weeks, sometimes less. X-rays and myelogram study are definitely indicated when the patient does not improve under conservative treatment of a clinically proven herniated disc. Before removing the Pantopaque, we always take a true lateral film. On two occasions lately, we had what seemed to be a negative myelogram study with A.P. and oblique films, but saw a large central filling defect on the lateral view. These two patients have returned to their regular work, one after four weeks, the other after five weeks under conservative treatment and have had no serious complaint since.





CONCLUSION

1. Low back pain may be a complicated problem. Its pathology is not always in a herniated disc.
2. Taking of a good history may be tedious but essential.
3. The examination is time consuming, but will frequently reward you by arriving at the proper diagnosis.
4. Treatment will vary with the pathology.

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CLINICO-PATHOLOGICAL CONFERENCE

R. A. BELIVEAU, M. D.*

Patient is a 46-year-old housewife admitted at 1 P. M. on February 10, 1955, in a stage of unconsciousness.

Past History: Married at 19, two children living and well. Admitted to hospital on 12/22/48 in a state of acute alcoholism. "For a year and a half has been a steady consumer of alcohol." Discharged after 15 days. Admitted again on 10/14/53 for panhysterectomy following a positive Papanicolaou smear and a biopsy of the cervix. Recovery uneventful.

Present Illness: The history was obtained from the husband who stated that his wife has continued to take alcohol since her discharge from the hospital but consumed a progressively large amount for about three weeks with almost no food. Appetite has been very poor and there has been a loss of 20 pounds. About 10 days previous to admission she visited her doctor's office and was found to be in a semi-stuporous condition but was able to answer questions quite intelligently. She was advised to give up all intake of alcohol, to take a high protein diet and was given a prescription for high dosage of vitamin B complex and C. The morning of admission her husband found her on the floor, unconscious and with frothy mucus at the mouth.

Physical Examination: Patient in undernourished condition, pale, unconscious and with deep, rapid "air-hunger" respirations.

Eyes: Pupils equal and regular, react to light.

Mouth: Tongue heavily coated. Breath of acetone.

Lungs: Hyperresonant throughout except for the left base where numerous crepitant rales can be heard.

Heart: Beats rapid. Organ not enlarged. No friction rub. A distinct systolic murmur can be heard not transmitted to axilla. Blood pressure 125/60.

Abdomen: Soft and not tender. Liver can be felt four fingers below the costal margin. Spleen not palpable. No masses felt.

Extremities: Fresh skin bruises over right leg with ecchymosis. Knee jerks diminished. Otherwise negative.

Course in Hospital: On admission her blood count was Rbc. 3,000,000, Hb. 9 gms., Cl. .9, Wbc. 18,900 with 92 polys. Sedimentation time 33 mm. in 1 hour

(Cutler), CO₂ 25, NPN 24, Proteins 7.2, Blood alcohol .090%, Temperature 102.3, Respiration 40, Blood glucose 132. A spinal puncture was normal.

She was immediately put on high doses of antibiotics and received 500 c.c. of 5% glucose with soluble B and C. Cystodigin was prescribed. On the morning after admission her temperature rose to 104 and respirations to 50. Lungs began to show crepitant rales throughout and diminished breath sounds at both bases. CO₂ 27. Intravenous medication changed to Darrow's in continual drip. She became weaker, respiration shallower. A few minutes before she quietly died, her CO₂ was 33.4. She was in the hospital 28 hours.

Dr. Geraldine Lynn: Basically this is a chronic alcoholic woman who had a panhysterectomy for what apparently was a malignancy of the cervix. She had a positive Papanicolaou and what I have learned was a carcinoma in situ. Now she was found unconscious by her husband, brought to the hospital, found to have a high temperature, high white count with 92 polys, increase in sedimentation rate all pointing to some infection. I cannot blame the alcohol for her present difficulty. The outstanding thing besides those already mentioned is the acidosis from which standpoint I want to discuss this case. There are only eight or nine basic causes for acidosis, the main one being diabetes. The blood sugar tends to rule this out. There is no history of her having had any drugs. Kidneys were working alright as evidenced from the slight urinary change and normal NPN. Severe infection will cause acidosis and there is evidence of it here but I cannot pin-point it from the physical examination although the lungs may be suspected. However, these lung findings could be part of her terminal condition. She has not received any anesthesia. There is a systolic murmur, not transmitted, which could be as a result of her anemia of 3,000,000. The liver can easily be palpated and is enlarged but we have no direct evidence of cellular disease of this organ. There is no ascites, no jaundice and I have to assume that there is no nodularity of the organ.

The thing which would seem to fit in best is the fact that she lost 20 pounds and has had almost no food in three weeks. This, of course, accompanied by faulty carbohydrate metabolism, may result in the rather deep acidosis which we have here. I then would say that the immediate cause of death is acidosis probably one of metabolic activity. There is also an intercurrent infection which I cannot identify.

* From the Department of Pathology, St. Mary's General Hospital, Lewiston, Maine.

Program In Brief

MAINE MEDICAL ASSOCIATION

102nd ANNUAL SESSION

THE SAMOSET

ROCKLAND, MAINE

SUNDAY, MONDAY, TUESDAY

JUNE 19, 20, 21, 1955



SCIENTIFIC COMMITTEE

J. ROBERT DOWNING, M. D., Kennebunk, *Chairman*

FRANCIS H. SLEEPER, M. D., Augusta

LLOYD BROWN, M. D., Bangor

Sunday, June 19, 1955

12.00 Noon

Registration (Registration throughout the session will be at
The Samoset—Hours to be announced)

2.00 P. M.

First Meeting of the House of Delegates

Martyn A. Vickers, M. D., Acting President-Elect, pre-
siding

6.30 P. M.

Dinner:

Speaker: **Governor Edmund S. Muskie**

Subject: To be announced

Monday, June 20, 1955

9.00 A. M.

Second Meeting of the House of Delegates

Martyn A. Vickers, M. D., Acting President-Elect, pre-
siding

10.00 A. M. to 12.00 Noon

General Session

10.00 A. M.

Presiding—**Francis H. Sleeper, M. D.**, Augusta

Speaker: **Peter W. Bowman, M. D.**, Superintendent,
Pownal State School

Subject: DEFECTIVE DELINQUENCY IN MAINE

11.00 A. M.

Presiding—**J. Robert Downing, M. D.**, Kennebunk

Speaker: **Howard B. Sprague, M. D.**, Clinical Asso-
ciate in Medicine, Harvard Medical School (Spon-
sored by the Maine Heart Association)

Subject: FACTORS IN THE PRODUCTION OF ATHEROSCLEROSIS

12.30 P. M.

Luncheon

Luncheon Meetings:

Meeting of Secretaries of the County Medical Societies

Speaker: **Daniel F. Hanley, M. D.**, Director, Maine
Medical Association

Meeting of Board of Directors of the Maine Heart Asso-
ciation

2.00 P. M. to 4.00 P. M.

General Session

2.00 P. M.

Presiding—**Lloyd Brown, M. D.**, Bangor

Speaker: **Donald S. King, M. D.**, Professor of Tho-
racic Medicine, Dartmouth Medical School (Spon-
sored by the Maine Tuberculosis Association)

Subject: MODERN CONCEPTS IN TREATMENT OF TUBER-
CULOSIS

3.00 P. M.

Presiding—**Maurice Ross, M. D.**, Saco

Speaker: **Louis Weinstein, M. D.**, Haynes Department
of Infectious Diseases, Massachusetts Memorial Hos-
pitals (Sponsored by the State of Maine Department
of Maternal and Child Health)

Subject: ANTIBIOTICS IN PEDIATRICS

4.00 P. M. to 5.00 P. M.

General Assembly

Presiding—**William F. Mahaney, M. D.**, President

Order of Business:

Election of President and President-Elect

Introduction of Visiting Delegates

6.30 P. M.

Clam Bake—followed by dancing

Tuesday, June 21, 1955

9.30 A. M.

Maine Medico-Legal Society Annual Business Meeting:

Reports of Officers

Election of Officers

Speakers:

President Charles E. Towne, M. D., Waterville

Former Attorney General Alexander LaFleur, Mr.
LaFleur will present for discussion his views on
"A CHIEF MEDICAL EXAMINER FOR MAINE." (This
would mean some radical changes in the Medical
Examiner Law)

10.00 A. M. to 12.00 Noon

General Session

10.00 A. M.

Presiding—**William F. Mahaney, M. D.**, President

Speaker: **John L. Madden, M. D.**, Director, Depart-
ment of Surgery, St. Clare's Hospital, New York City

Subject: GALL BLADDER DISEASE

11.00 A. M.

Presiding—Richard C. Wadsworth, M. D., Bangor

Speaker: Joseph H. Burchenal, M. D., Professor of Medicine, Sloan-Kettering Division, Cornell University Medical College (Sponsored by the Maine Cancer Society)

Subject: CHEMOTHERAPY OF BLOOD DYSCRASIAS

12.30 P. M.

Luncheon

Luncheon Meeting:

Indoctrination Meeting for new members of the Maine Medical Association

Speaker: William F. Mahaney, M. D., President

2.00 P. M. to 5.00 P. M.

General Session

2.00 P. M.

Maine Medico-Legal Society:

Remarks by President Charles E. Towne, M. D.

Remarks by Vice President James B. Perkins, County Attorney

Remarks by Colonel Robert Marks, Chief of State of Maine Police

Speaker: Charles F. Branch, M. D., Lewiston

Subject: THROUGH MAINE WITH ROD AND GUN

Speaker: A. Warren Stearns, M. D., Professor of Sociology, Tufts College

Subject: HOMICIDE IN MAINE

2.00 P. M. to 5.00 P. M.

Maine Heart Association Clinical Program

Program to be announced

6.30 P. M.

Annual Banquet:

Presentation of medals and awards

President's Address: William F. Mahaney, M. D.

Guest Speaker: Herbert Ross Brown, Professor of English, Bowdoin College

Subject: To be announced

SPECIAL NOTICE

GOLF TOURNAMENT

Francis A. Winchenbach, M. D., Bath, Chairman

PROGRAM IN BRIEF

Woman's Auxiliary

to the

Maine Medical Association

Seventh Annual Convention, June 19, 20, 21, 1955

The Samoset—Rockland, Maine

REGISTRATION

Registration on Sunday, June 19, and throughout the session will be at The Samoset.

MONDAY, JUNE 20

9.30 A. M.

Board Meeting

10.30 A. M.

Annual Meeting:

Speaker: Mrs. Mason G. Lawson, President-Elect, Woman's Auxiliary to the American Medical Association

12.30 P. M.

Luncheon

2.30 P. M.

Fashion Show by the Bates Manufacturing Company

EVENING MEETINGS

Members of the Woman's Auxiliary are invited to attend the meetings of the Maine Medical Association.

THE PRESIDENT'S PAGE

The custom of having a President's Page in the JOURNAL was established some years ago, and it became one of the President's duties to provide material for the page in each issue that was published during his term of office.

However, during the past few years it has become a sort of unwritten rule that the President make use of this page only when he had a message of special importance. I have followed this latter practice but now find myself nearing the end of my term as President with two matters of importance for one issue of the JOURNAL.

The first concerns our new Director, Dr. Daniel F. Hanley; and if you are acquainted with Dr. Hanley, I feel sure that you will agree that we are very fortunate to have a man of his calibre willing to accept the position of Director of the Association.

The second item is a letter which was mailed on May 5th to the Board of Directors of the Associated Hospital Service of Maine and to their Executive Director, Mr. Paul A. Webb. I believe that this letter explains itself and requires no further comment.

WILLIAM F. MAHANEY, M. D.,
President, Maine Medical Association.

OUR NEW DIRECTOR

Daniel F. Hanley, M. D., who has been appointed Director of the Maine Medical Association, assumed his duties on May 1, 1955.

Dr. Hanley was born March 27, 1916, at Amesbury, Massachusetts. He graduated from Governor Dummer Academy and in 1939 from Bowdoin College. He received his medical degree from Columbia University College of Physicians and Surgeons in 1943, and interned at the Boston City Hospital.

From 1944 to 1946, Dr. Hanley was in the United States Army Medical Corps and saw service in the China-Burma-India Theatre. He has been Bowdoin College Physician since his return to civilian life and will continue in this position.

Dr. Hanley is a member of the staff of the Mercy Hospital in Portland and the Bath Memorial Hospital in Bath. He is a member of the Cumberland County Medical Society, Maine Medical Association, and American Academy of General Practice.

He is married to the former Maria Benoit of Cape Elizabeth. They have four children; Daniel, 5, twin daughters Sheila and Sharon, 4, and Sean, 2.



Dr. Hanley has been keenly interested in the affairs of the Maine Medical Association since he first became a member. He has served on various committees and as a delegate from the Cumberland County Society to the Association's House of Delegates. Before accepting his new position, he visited several of the other New England medical societies and also the Washington office of the American Medical Association. His contacts with these organizations strengthened his belief in the importance of the work of the medical societies and convinced him that in assuming the office of Director of the Maine Medical Association, he was accepting a challenge to increase its influence and effectiveness.

May 5, 1955

TO THE BOARD OF DIRECTORS OF THE
ASSOCIATED HOSPITAL SERVICE OF MAINE

Gentlemen:

At the latest meeting of the directors on April 20, 1955, certain statements were made in reference to the alleged over-use of Blue Shield and interpreted by Mr. Webb as being primarily due to the medical profession. In order not to delay you gentlemen at the meeting with a prolonged discussion on this serious matter, I have taken this method of communicating to you the medical side of this question.

One of the statements made by your executive director was that he felt that many patients were hospitalized for the convenience of the doctor and also so that the doctor would be sure of his fee.

It is very difficult, if not impossible, to legislate honesty but I still believe that by and large the medical profession is fundamentally honest, particularly in its relationship with patients. I have personally been forced to hospitalize patients, whether they had Blue Shield or whether they were free cases. They could have been treated at home, but due to the atmosphere or poor financial circumstances they obviously recovered more quickly and surely by being hospitalized.

Who is to judge whether a hospitalization is justified or not except one's own personal physician? In order to diagnose the cause of a chest pain it may be necessary to have certain cardiac tests performed, X-rays of the gall bladder, X-rays of the stomach, etc. These may all prove to be negative and, if so, so much the better for the patient—but who is to decide that this hospitalization and these tests were unnecessary if not your personal physician?

When your home is quarantined and no one is allowed to enter or leave because your child is suffering from a contagious disease and may be dangerously ill, your personal physician travels in and out of your home without regard to his own welfare. When you or a member of your family is advised that surgery is necessary you depend entirely upon the judgment of your own physician.

I call your attention to these facts which occur daily in order to impress upon you the confidence and trust that you place in your personal physician and I resent the fact that at the directors' meetings we medical doctors as a group are to be judged by laymen in our hospitalization of cases and have the inference made that we are dishonest.

It is doubly difficult for me to understand how the board of directors with apparently no discussion can approve of the outlay of a large amount of money for a punch-card system which your executive director tells us will not save any money but will make his work easier and his statistics more reliable. Is not arriving at the correct diagnosis of an ailment of a human being infinitely more important than expending this money for statistics? We of the medical profession think it is. We also think that the only reason for the existence of Blue Cross and Blue Shield is for the proper diagnosis and treatment of patients.

I respectfully submit the above for your consideration.

Very truly yours,

WILLIAM F. MAHANEY, M. D.,
President, Maine Medical Association.

The Journal of the Maine Medical Association

THOMAS A. FOSTER, M. D., Portland, Editor

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102nd Annual Session

The one hundred and second annual session of the Maine Medical Association, to be held at The Samoset, June 19, 20 and 21, calls for the support of all members. One hundred and two years of organized effort in behalf of our profession is an honorable record.

If we look back to the report of the first meeting at the old Tontine Hotel in Brunswick we will find that Section one of the original constitution reads as follows; "This Association shall be known as The Maine Medical Association; the object of which is mutual professional improvements, cultivation of friendly intercourse between its members, faithful support of regular and honorable practice and prompt exposure at all times, of the impositions of charlatany and empiricism." Empiricism in this case and 100 years ago was the polite word for quackery.

Now, in June, 1955, the Maine Medical Association gathers to reaffirm its belief in the precepts of the Founders. The annual sessions have produced an imposing amount of medical reports and enthusiastic oratory. For example let us quote from the Presidential Address of Dr. E. F. Sanger of Bangor, at the 25th meeting held in Portland in June, 1877. "The beautiful month of June has again returned with its genial sunshine, its smiling fields and singing birds. With it has come also, the annual meeting of this Association, warmed into life by the happy greetings of members and the pleasant renewal of old acquaintances who, relieved of the incumbrance of professional cares, meet again to indulge in their annual 'feast of reason and flow of soul.'" His words give the impression that he was in rare form and all was well. And now we meet again in the happy spirit expressed by Dr. Sanger.

Our sessions may take on new forms in programs but they continue to cherish and uphold the declarations of our honored predecessors. We strive to present instructive essays on current medical advances and thereby enhance our "mutual professional improvement." This year the program committee, under the direction of our Chairman, Dr. J. Robert Downing of Kennebunk, has arranged a general program which promises to interest and instruct. As for "friendly intercourse between the members," the social events this June will maintain the same high standards established over the years. And the House of Delegates and various committees will be on hand to conduct the affairs of the Association in a manner conducive "to faithful support of regular and honorable practice."

The Scientific and Social Programs will offer a "feast of reason and a flow of soul." The Committee meetings and the House sessions will call for a lot of hard work. Many important decisions in Committees and in the House will require careful analysis and calm discussion.

The Association is confronted with some serious problems, to name a few; amendments to our By-Laws; a statement of our position with relationship to the osteopaths, a decision on our attitude toward the "hospital practice" of medicine. These questions and others will be presented to our delegates. They are questions which need a hearing before a well attended House of Delegates.

Therefore with the prospects of an important organization meeting before us, a lively social time and a high quality scientific program to balance the meeting, we bespeak your interest and hope for your attendance.

Scientific Meetings

As the years pass the pattern for scientific meetings undergo changes. The present trend is toward a program featuring general meetings with a speaker developing a general subject. At our meetings in recent years this type of program has proved to be satisfying to a majority of the members and arrangements for the meeting in June will follow this pattern. The Program-In-Brief appears elsewhere in this issue of the JOURNAL. The Official Program will be mailed to every member before the meeting and will be published in the June JOURNAL.

Business Meetings

The delegates from the County Societies represent the members practicing in their respective counties and it is important for them to know the opinions and decisions of the members and be prepared to

present them. The first meeting of the House of Delegates will be held at 2.00 P. M. on Sunday, June 19th, with Martyn A. Vickers, M. D., of Bangor, presiding. A second meeting will follow at 9.00 A. M. on Monday, June 20th. Order of Business for these two meetings will be sent to the delegates prior to the annual session but we would like to mention here that election of Councilors for the Fifth and Sixth Districts will take place at the second meeting of the House of Delegates. At this point we would like to call attention to the General Assembly, the business meeting of the Association, in which every member is eligible to participate. The meeting this year, which will be held at 4.00 P. M. on Monday, June 20th, presents a double responsibility to the membership inasmuch as a President and President-Elect must be chosen. The Association in general and the officers in particular are strengthened by a large and interested attendance.

The Francis Report

We join with our contemporaries in recording in the pages of our State Medical Journal a statement of the Francis Report on the Salk Vaccine for Anterior Poliomyelitis. The gradual accumulation of scientific data about the growth of the viruses, about the blood stream invasion and finally the neutralization will rank as a great coöperative accomplishment by American research workers. And behind the scientific investigators, millions of every-day citizens worked to furnish the dimes and the dollars to support the search for a preventative and remedy for this dreaded malady. The achievement, so anxiously awaited, in every

phase of development is a triumph for free enterprise and unimpeded experimentation. We, in Maine, are entitled to a share in the success of the program. Our participation in the "field trials" of 1954 indicated a willingness to coöperate in the nationwide program. Reports from the records of children inoculated in 1954, have up to this date been favorable. This year we look forward to the inoculation of thousands of our youngsters. Production of the vaccine will take time, a fair allocation will restrict widespread use of the vaccine at once but after a reasonable period of patient waiting all hands will be served.

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COUNTY SOCIETY NOTES

Franklin

May 9, 1955

A supper meeting of the Franklin County Medical Society was held at the American Legion Hall, Wilton, May 9, 1955. William F. Mahaney, M. D., President of the Maine Medical Association, and Robert D. Wakefield, M. D., of the Central Maine General Hospital, Lewiston, were guest speakers at this meeting.

Kennebec

April 21, 1955

Wyland Leadbetter, M. D., of Boston, was guest speaker at the April meeting of the Kennebec County Medical Society, which was held at the Veterans Administration Center, Togus, Maine.

Dr. Leadbetter's subject was Thoughts About the Management of Advanced Prostatic Cancer.

Penobscot

April 19, 1955

The April meeting of the Penobscot County Medical Society was held at the Tarratine Club in Bangor.

Cornelius E. Sedgwick, M. D., of the Department of General Surgery, Lahey Clinic, Boston, was the speaker. His subject was Special Complications of Diverticulitis.

Washington

April 14, 1955

A regular meeting of the Washington County Medical Association was held on Thursday, April 14th, at the Congregational Vestry in East Machias with eighteen members and guests present.

A most excellent roast turkey dinner was served by members of the Ladies' Union Society.

Allan D. Griffin, M. D., Research Associate at the Roscoe B. Jackson Memorial Laboratory in Bar Harbor, explained the work of the laboratory and what it is trying to accomplish. Cancer research particularly applied towards study of the different cancer cells and why they develop occupies most of their time. Over two hundred scientists and assistants carry out this work using 150,000 mice in their investigations. They have discovered much about cancer but still have no clue as to its etiology. They have discovered that cancer cells can adapt to different stimuli and can change their cellular makeup in a rather fearsome manner. These changes allow the cancer cell to fight against X-rays and radium and so far anything else that has been thrown against them. Dr. Griffin showed a short movie that illustrated the work of the laboratory.

William F. Mahaney, M. D., of Saco, president of the Maine Medical Association then spoke. He mentioned the great advance that the use of the Salk vaccine had brought. He advised caution in its use with penicillin sensitive individuals because the Salk vaccine contains minute amounts of penicillin.

There was considerable discussion on the abuses of the State Aid program from the physicians viewpoint.

It was voted to hold the next meeting in Calais in June.

KARL V. LARSON, M. D.,
Secretary.

Continued page 145

DRAMAMINE® IN VERTIGO



1. Bárány Pointing Test. The patient points at a stationary object, first with his eyes open and then closed. A constant error in pointing (past pointing) with his eyes closed in the presence of vertigo indicates peripheral labyrinthine disease or an intracranial lesion.



2. The Caloric (Bárány) Test. The patient sits with his eyes fixed on a stationary object and the external ear canal is irrigated with hot (110 to 120 F.) or cold (68 F.) water. If the vestibular nerve or labyrinth is destroyed, nystagmus is not produced on testing the diseased side.



3. The Rotation (swivel chair) Test. The patient sits in a swivel chair with his eyes closed and his head on a level plane. The chair is turned through ten complete revolutions in twenty seconds. Stimulation of a normal labyrinth will cause nystagmus, past pointing of the arms and subjective vertigo.

Notes on the Diagnosis and Management of "Dizziness"

I. Vertigo

The term "dizziness" (vertigo) should be restricted to the sensation of whirling or a sense of motion.¹ This sensation is usually of organic origin and is the tangible symptom of a specific pathology.

Moderate vertigo, with a sense of motion and a whirling sensation, may be produced by infection, trauma or allergy of the external or middle ear. Examination of the ear will usually disclose the abnormality.

Severe vertigo, which will not permit the patient to stand and causes nausea and vomiting, indicates an irritation or destruction of the labyrinth. The specific condition may be labyrinthine hydrops, an acute toxic infection, hemorrhage or venospasm of the

labyrinth or a fracture of the labyrinth. Multiple sclerosis and pathology of the brain stem should be considered also.

It is important to learn if the patient's sensation is continuous or paroxysmal.² Paroxysmal vertigo suggests specific conditions: Ménière's syndrome, cardiac disease and epilepsy. Continuous vertigo without a pattern may be due to severe anemia, posterior fossa tumor or eye muscle imbalance.

Dramamine® has been found invaluable in many of these conditions. In mild or moderate vertigo it often allows the patient to remain ambulatory. A most satisfactory treatment regimen for severe "dizziness" is bedrest, mild

sedation and the regular administration of Dramamine.

Dramamine is also a standard for the management of motion sickness, is useful for relief of nausea and vomiting of radiation sickness, eye surgery and fenestration procedures.

Dramamine (brand of dimenhydrinate) is supplied in tablets (50 mg.) and liquid (12.5 mg. in each 4 cc.). G. D. Searle & Co., Research in the Service of Medicine.

1. Swartout, R., III, and Gunther, K.: "Dizziness." Vertigo and Syncope, GP 8:35 (Nov.) 1953.

2. DeWeese, D. D.: Symposium: Medical Management of Dizziness: The Importance of Accurate Diagnosis, Tr. Am. Acad. Ophth. 58:694 (Sept.-Oct.) 1954.

SEARLE

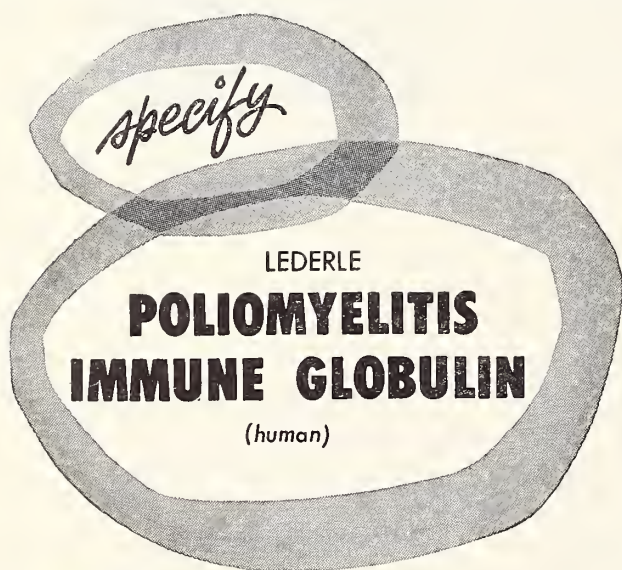
Clinico-Pathological Conference—Continued from page 132

Dr. Bertrand Beliveau: I would like to clear one thing about the systolic murmur. The record says only that it was not transmitted but does not tell us where best heard or anything of the kind. Apparently from the description given here it is a functional murmur but it may well not be. I think drug poisoning can be ruled out. The question of diabetic acidosis has been mentioned but in view of the blood sugar and urine can be ruled out. Hepato-renal syndrome has to be thought of but the history is too rapid for that. The question of encephalitis has to be considered as well as a cardio-vascular accident.

There is one very important point that we should remember. A chronic alcoholic, especially one who has been drinking excessively for a good many days is susceptible to infection which may be very severe and rapid. I think this possibly could be an inflammatory thing following days of alcohol intake with no food. It may have begun as a pneumonia followed by septicemia and possibly a bacterial endocarditis. According to the story the temperature rose to 104 in the morning after admission, she had diminished breath sounds probably due to an effusion in the bases. I think she died a cardiac death.

Dr. R. A. Beliveau: I think this case illustrates what may and does happen in the office of a so-called "family physician" at the time of what he thinks is a routine visit and consultation. This patient was well known to the doctor who had been treating her and her family for several years. He knew for a long time that she was a chronic alcoholic and this was just another of those incidents. Her appearance was one of intoxication. As we go on with the pathological findings the reason for bringing up this case becomes self-evident.

The report of the physical examination after admission does not give us too much information. It certainly is not consistent with the pathology found at the post-mortem. The right lower lobe of the lungs was one of fleshy consistency involving the whole lobe which had completely lost its normal sponginess. Color of cut surfaces varied from gray to yellowish-gray and fluid was minimal. Microscopically, all of the air spaces were occupied by collagenous tissue or groups of fibroblasts. The same condition prevailed in the respiratory bronchioles. The picture was one of pure organization. The remaining portion of the lung was found to be volumi-



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nous with an excessive amount of air almost to the point of bronchiectasis. The left lower lobe showed the usual picture of hypostasis and the remaining lung tissue also completely occupied its respective cavity.

The heart was moderately enlarged and its musculature pale, much softer than normally found. Upon opening, two of the three cusps of the aortic valve presented extensive soft warty involvement of their under surface, part of it reaching 6 mm. in the thickest portion. They were partly covered with a thin layer of coagulated blood. A culture from these areas showed staphylococcus aureus. The remaining three valves and the endocardium were not remarkable. Microscopically, the myocardium showed patches of interstitial edema with scattered lymphocytes, plasma cells and eosinophils.

Examination of the remaining organs showed no pathology except the liver which, although the general architecture was well-preserved, showed a moderate amount of fatty infiltration. It was not enlarged but pushed down by the diaphragm and lung.

Pathological diagnosis:

Organizing pneumonia, right lower lobe
Hypostatic pneumonia, left
Acute suppurative bronchitis

Bacterial endocarditis

Toxic myocarditis

Fatty infiltration of liver

Failure of the exudate of pneumonia to undergo complete liquefaction and absorption in some cases cannot be reasonably explained. We do know, however, that organization takes place in the presence of infective agents not readily destroyed by macrophages such as tubercle bacilli, actinomyces and other fungi, staphylococci and chemical pneumonia.

The complications of organization are: (1) Empyema. The exudation usually found in pneumonia of the pneumococcal type is not considered a complication but in the presence of a mixed infection the exudate may become frankly purulent. (2) Peritonitis. Occurs much more frequently in children where the peritoneum is involved more often by the blood stream than by direct extension through the diaphragm. (3) Abscess formation. (4) Endocarditis. The mitral or aortic valves are involved in roughened thick thrombi which interfere with the proper closure of the valves and give rise to emboli. (5) Purulent pericarditis as a direct extension through the pleuro-pericardial membranes. With the advent of the numerous antibiotics available meningitis as a complication is now a rare occurrence.

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TUBERCULOSIS ABSTRACTS*

Issued by the National Tuberculosis Association

Periodic Examinations

By H. Corwin Hinshaw, M. D., Bulletin, National Tuberculosis Association, January, 1955.

The purpose of periodic examinations of persons in apparent good health is identical with that of other medical examinations: to detect disease in its earliest phases of development and to counsel persons in matters of health preservation.

Who should be examined? The more important a person is to society, to relatives and dependents or to business associates, the more important his health becomes. Key men in business, mothers of children, heads of families and those with other important missions to perform must conserve their productive capacity. Disability from preventable illness constitutes a serious threat to successful attainment of goals in life.

Many corporations regard the health of their executives as valuable assets to be conserved. Often they require executives to undergo periodic examinations at intervals of from six to twelve months, the expense being borne by the corporation. Labor unions look to the welfare of their members but few have come to recognize the need for examinations of the type advocated here. Physicians, who bear grave responsibilities to many people, are notably negligent of their own health, often because they fear to impose upon busy colleagues.

Persons with a history of chronic or recurring ailments, notably diabetes, tuberculosis, hypertension, duodenal ulcer, and other conditions have learned by experience that medical care is part of personal maintenance.

Examination Techniques

Many physicians have learned that the examination of persons who believe themselves to be well is no simple task. The skill and judgment required is at least equal to that needed for the care of the sick. The procedure of conducting an examination should be similar to that ordinarily employed when the subject is known to be ill.

A thorough medical history, interpreted by a physician with a broad knowledge of internal medicine, may yield clues to health hazards not previously recognized. A careful record of past ailments is secured, with emphasis upon conditions which tend to persist or recur. Often the past medical history must be supplemented later with clinical and laboratory records, X-ray films and the findings and opinions of previous physicians. The patient's recollections and his current opinions concerning previous illness may be faulty.

If the patient has noted any abnormality of function or volunteers any symptom, or if he expresses any special fear of disease, these are recorded in detail. Finally, specific questions are asked with respect to each organ system. The end result is a complete and orderly inventory of the functional status of all parts of the body insofar as these have appeared to the patient.

The physician should probe into the emotional problems and occupational strains which may relate to health and happiness. It is important to record habits of eating, sleeping, and recreation, as well as the nature and intensity of physical and mental effort expended in occupational pursuits. The consumption of alcohol, tobacco, sedatives, and self-prescribed medications should be estimated in quantitative terms. Often it is wise to inquire directly concerning sexual habits and marital problems. Many persons who would never open such topics of conversation are eager to share their problems with an understanding physician and are benefited by doing so.

The physician should know his patient's ambitions, accomplishments, and plans for the future as well as his frustrations and failures. The physician, like the minister and the lawyer, is often in a position to assist the patient in analyzing his life program.

Physical examination of the apparently well person must be fully as meticulous and complete as in the case of the ailing person. Minor deviations from normality are evaluated as possible incipient disease. All accessible structures are observed closely and examined with seeing hands. The actions of the heart and lungs are determined by traditional methods of physical examination. If blood pressure is elevated it is determined repeatedly until a base level is recorded. The body orifices, including the ocular fundus, the nasal and oral cavities, the rectum and vagina are examined visually and probed with examining fingers or instruments.

Laboratory and X-ray studies will be planned after the medical history and physical examination have been completed. Each test will be chosen to answer a specific question, often a question which arose as a result of the interview or examination. In addition to the special tests certain routine examinations are necessary. An X-ray examination of the lungs and heart is essential to all cases. Blood counts and urine analysis also may reveal conditions not producing symptoms or findings. Very few cases are found by the routine serologic test for syphilitic infection but it has become traditional. Electrocardiograms are indicated if the patient is over the age of forty-five years. Even a normal tracing may become valuable for purposes of comparison if cardiac disease appears later.

The success of some community-wide anti-tuberculosis X-ray screening programs has suggested that tests to detect other diseases should be devised and applied to large population groups. Many physicians and public health experts are opposed to such multiphasic screening programs except as research projects. The reasons for such opposition are obvious if comparisons are made between the requirements of a thorough examination and those of a series of simple laboratory tests. An easy and inexpensive way to make everybody healthy has not been found.

The National Tuberculosis Association and its affiliated health organizations can do much to popularize good and thorough periodic medical examinations. The problem is largely one of health education and medical economics. People have already learned that periodic dental examinations are wise and economical. Parents have already learned to consult pediatricians for advice and care of well children. When private pediatricians cannot be had, well baby clinics are provided. Why not well papa and well mama clinics?

The actual cost of periodic health examinations by private physicians is not beyond the reach of the average working man. Maintenance of a man costs less than maintenance of an automobile. The cost of trading the serviceable old car for a new model is greater than the cost of a major illness. The cost of maintaining a good sickness insurance policy is less than the cost of smoking a package of cigarettes daily. Women spend more in beauty parlors than in doctors' offices. Many families who spend hundreds of dollars annually on luxuries and vices are considered to be "medically indigent." Values and standards are distorted through ignorance and improvidence.

Readers of popular magazines learn much about modern medicine, much that is true and some that is half true. Our elementary and secondary schools should now have organized courses in medical science, teaching anatomy, physiology and pathology. Such knowledge in the next generation would lead to better appreciation of health and good medical care. Money now spent on nostrums and quacks would be devoted to the purchase of adequate preventive and curative medical care.

The voluntary health organizations are the most potent factors in health education in America today. Their support should be directed toward securing the best medical care for well people as well as for persons who are ill.

(The printing of Tuberculosis Abstracts is made possible by the cooperation of your local tuberculosis and health association.)

County Society Notes—Continued from page 140

New Members

Androscoggin

Charles A. Hannigan, M. D., 85 Goff Street, Auburn.
Margaret H. Hannigan, M. D., 85 Goff Street, Auburn.

Cumberland

John F. Gibbons, M. D., 22 Arsenal Street, Portland.

Knox

Harold M. Frost, M. D., Friendship.

Deceased

Cumberland

Ervin A. Center, M. D., Steep Falls—April 23, 1955.
Joseph B. Drummond, M. D., South Portland—April 21, 1955.

York

Fitz E. Small, M. D., Biddeford—April 18, 1955.

NEWS AND NOTES

A. M. A. Clinical Session

Boston, November 29 - December 2, 1955

Television Program

Physicians of New England are showing a most gratifying spirit of coöperation in the early planning for the Clinical Session of the American Medical Association to be held in Mechanics Building, Boston, for the 4 days from November 29 to December 2, 1955.

One feature of the session will be the television programs (in color) which will be possible through the generosity of Smith, Kline and French Laboratories of Philadelphia.

Television programs will originate from the New England

Deaconess Hospital and sent by closed circuit to a special hall in Mechanics Building. The morning programs will be *surgical* in nature and demonstrate operations by surgeons on the staff of the Deaconess. The afternoon programs will consist of talks, demonstrations and panel discussions on *medical* subjects.

Participation in the afternoon medical programs is open to all, subject to acceptance by the Committee. Physicians desiring to take part are urged to send in abstracts promptly, summarizing the proposed presentation in not more than 300 words. In addition, ideas or suggestions for appropriate topics and participants in either the surgical or medical pro-

Continued on page 147

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grams will be welcomed by the Committee. Prospective participants should keep in mind that a successful television demonstration *must* have visual interest. One must avoid reading a paper before the camera and the presentation should be built around patients, instruments, apparatus, charts, slides and X-rays. There will be no facilities for showing films or movies. Participants will be given information on television appearance and on size and colors of charts and slides at a special orientation meeting which will be held 6-8 weeks prior to the meeting.

Proposals and suggestions should be sent to the Chairman of the Television Committee, Alexander Marble, M. D., 81 Bay State Road, Boston 15, Mass.

**State of Maine
Board of Registration of Medicine**

Adam P. Leighton, M. D., 192 State Street, Portland, Secretary.

Physicians licensed to practice Medicine and Surgery in the State of Maine, March 9, 1955.

Through Examination

Hamdi Akar, M. D., 1107 So. Washington St., Alexandria, Va.

Johan Brouwer, M. D., Veterans Hospital, Rocky Hill, Conn.

Daniel J. Carlin, M. D., St. Catherine's Hospital, 133 Bushwick Ave., Brooklyn 6, N. Y.

Risto J. Gobius, M. D., 2 Holcomb St., Hartford, Conn.

Thomas Guckian, M. D., 13 Allen St., Dobbs Ferry, N. Y.

Tsi Gziou Li, M. D., 87-20-134th St., Richmond Hill, N. Y.
Desmond P. McNelis, M. D., State Hospital, Butner, N. C.

Andrejs Melkis, M. D., Pownal State School, Pownal, Me.
Frits Mijer, M. D., 49 Worthington St., Roxbury, Mass.

Nicholas P. D. Smyth, M. D., 2800 W. Grand Blvd., Detroit, Mich.

Pierre P. Tulou, M. D., 525 So. Samuel St., Charles Town, West Va.

Through Reciprocity and Endorsement

Roland E. Berry, M. D., Eastern Maine General Hospital, Bangor, Me.

Paul Fremont-Smith, M. D., 1180 Beacon St., Brookline, Mass.

John F. Gibbons, M. D., Maine General Hospital, Portland, Me.

Lloyd M. Horlick, M. D., 82 Court St., Portsmouth, N. H.

Jacob M. Jackler, M. D., 165 Davis Ave., Brookline, Mass.

Lawrence A. Nadeau, M. D., 124 Blake St., Lewiston, Me.

Paul H. Pfeiffer, M. D., 33 College Ave., Waterville, Me.

Edward C. Porter, M. D., Eastern Maine General Hospital, Bangor, Me.

Borys Surawicz, M. D., Philadelphia General Hospital, Philadelphia, Pa.

James E. Surgenor, M. D., Maine General Hospital, Portland, Me.

Paul Teng, M. D., Mount Sinai Hospital, New York, N. Y.

Alfred A. Zanette, M. D., 5538 Chicago Ave., Chicago 51, Ill.

Continued on page 149

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Tumor Clinics

Sisters Hospital, Waterville, Maine, 1st and 3rd Thursdays, 10.00-11.00 A. M., Armand L. Guite, M. D., Director.

Augusta General Hospital, Augusta, Maine, 2nd and 4th Wednesdays, 9.00 A. M., Oakley A. Melendy, M. D., Director.

Maine General Hospital, Portland, Maine, Thursdays, 10.00 A. M., Joseph E. Porter, M. D., Director.

Presque Isle General Hospital, Presque Isle, Maine, Thursdays, 10.00-12.00 A. M., Storer W. Boone, M. D., Director.

Madigan Memorial Hospital, Houlton, Maine, 2nd and 4th Wednesdays, 10.00-12.00 A. M., Joseph A. Donovan, M. D., Director.

Central Maine General Hospital, Lewiston, Maine, Tuesdays, 10.00 A. M., Ross W. Green, M. D., Director.

St. Mary's General Hospital, Lewiston, Maine, Wednesdays, 3.30 P. M., Romeo A. Beliveau, M. D., Director.

Eastern Maine General Hospital, Bangor, Maine, Thursdays, 10.30 A. M., Magnus F. Ridlon, M. D., Director.

Thayer Hospital, Waterville, Maine, Tuesdays, 10.00-11.00 A. M., Irving I. Goodof, M. D., Director.

Mental Health Clinic Schedule

The Division of Mental Health offers psychiatric clinic service to children and adults in the following cities:

Portland — Health and Welfare Department, 178 Middle Street. Every Tuesday.

Lewiston — Out-Patient Department, Central Maine General Hospital. Every Monday.

Augusta — Bureau of Health, Division of Mental Health. By Appointment.

Waterville — Mansfield Clinic, Thayer Hospital, 3rd Wednesday.

Bangor — Out-Patient Department, Eastern Maine General Hospital. 1st Wednesday afternoon.

Valentine School, Union Street. 1st Thursday.

A traveling clinic visits the following towns and cities at irregular intervals: Caribou, Houlton, Lincoln, Machias, Rockland and Rumford. The Portland Clinic is open daily with a staff of 1 psychiatric social worker and 1 psychologist. The psychiatrist is in attendance on Tuesdays. The other clinics are staffed by a psychiatrist and a psychologist.

Referrals may be made by private physicians, parents, families, school agencies, school superintendents, Department of Education, all divisions within the Department of Health and Welfare. Application blanks may be obtained from the main office of the Division of Mental Health — State House, Augusta.

Patients are seen by appointment only. Each child must be accompanied by a parent or guardian. Applications should be sent to the Director, Division of Mental Health, Department of Health and Welfare, State House, Augusta.

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The Journal of the Maine Medical Association

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Portland, Maine, June, 1955

No. 6

RECONSTRUCTIVE ARTERIAL SURGERY — PROGRESS NOTE

C. PHILIP LAPE, M. D., Portland, Maine

INTRODUCTION

In 1949, Dr. Robert Gross reported what I believe was the first successful transplantation of an artery from one human being into another. The implications were obvious and exciting, since the donor was a dead human, and the artery the aorta. The groundswell of reviving interest in vascular surgery which preceded and brought about this announcement is still on the increase, and voluminous literature is now available to inform and confuse the interested. Some arterial reconstructive techniques are now fairly well standardized, and artery banks of several varieties are growing in profusion. Two basic questions of great interest remain to be answered, however. We would all like to know which is the best type of arterial prosthesis—and in whom it should be inserted.

It seems definitely established that aortic reconstructions may be fashioned with great reliability and with relatively little hazard using plastic prostheses, or human arteries preserved either by simple freezing or freeze-dry techniques. There is reason to believe that all three types of reconstructions will function well for several years at least—and several have continued to function without accident for over three years. For these reasons we feel there is sufficient evidence at hand to recommend aortic excision and reconstruction for those localized diseases which threaten life and/or impose severe disability. These conditions include abdominal aortic aneurysm, aortic thrombosis with ablation of femoral pulses, and prob-

ably long coarctions which cannot be corrected by excision and primary suture.

INDICATIONS

The indications for arterial reconstruction in patients with femero-popliteal aneurysms and segmental occlusions have been much more difficult to delineate. Direct arteriographic studies have shown segmental occlusion of the femoral artery to be an extremely common disease. The diagnosis may now be made with great accuracy on the basis of clinical observations alone in many patients with intermittent claudication or other evidences of impaired arterial circulation. Reasoning from the experience with aortic grafts, one would think that all occlusions of the femoral artery which are associated with distal main arteries of good caliber should be operated upon. To my mind, the clinical experience does not yet justify this position. Problems of hemorrhage, infection, poor wound healing, and immediate thrombosis within the operated artery are not responsible for this retreat. There is at present enough experience with the selection of candidates and the operative details of this type of reconstruction to offer every promise of satisfactory immediate post-operative arterial circulation. The operations have been tedious at times, but have been tolerated well by elderly poor risk patients, and have been followed by minimal discomfort. Delayed graft occlusion is the post-operative catastrophe which has been frequent, and so far not preventable. (There are no data available concern-

ing the use of long-term anti-coagulant therapy to minimize this accident. At present we have one patient on chronic dicumarol regulation following an arterial graft, and it seems to us that this approach must be further explored.)

REVIEW OF THIRTEEN CASES

We wish to report a modest experience with this problem from our own community. Thirteen patients have had some type of reconstructive arterial surgery for thrombotic occlusion of the femoral artery. Cases of embolectomy and thrombendarterectomy have been excluded—as have the cases of aortic and iliac reconstruction. The operations were done by four different surgeons. Four patients had autogenous vein transplantations (two saphenous, two femoral); two had frozen irradiated homologous veins implanted; and the remainder received irradiated frozen homologous arteries. Three patients had no circulatory improvement following their operations. In each case we believe this was due to unrecognized thrombosis within the distal arteries of the leg, antedating the operation. The remaining ten patients had gratifying or complete improvement in circulation following construction of their grafts. Infection near a suture line caused massive bleeding from one of these grafts nineteen days after its construction; repair of the leak resulted in occlusion of the graft and eventual amputation. Four of the remaining nine cases showed sudden, unexpected, and complete clotting which occurred twelve days, twenty-one days, eight weeks, and ten months following surgery. Two of the remaining five cases died of other causes while their grafts were functioning, ten weeks, and eighteen weeks after surgery. The other three grafts are still working — four months, six weeks, and four weeks after surgery.

RESULTS

These results are far poorer than we had hoped for and rather expected on the basis of the experience of others with aortic occlusions. They suggest that femoral arterial disease is quite a different sort of problem than aortic or iliac occlusion. Not counting our own cases, I have been able to find reference in the recent literature to one hundred and fifty femoral arterial reconstructions, using grafted veins or arteries (Fig. 1). Of these, seventy-nine had clotted at the time the referring articles were written. Of the remaining seventy-one patent grafts, only seventeen cases had been definitely followed for at least one year after surgery. Some of the remaining fifty-four cases might fairly be expected to occlude within the first post-operative year.

Adding our figures to those above, it would seem that the following summation can be made:

A. One hundred and sixty-three cases of at-

FIG. 1
FEMORAL ARTERY RECONSTRUCTIONS
Using Artery or Vein Graft

Author		Number Reported	Clotted at Time of Reporting	No. Patients Over 12 mos. at time reported
Eastcott	(1)	13	7	Not Stated
Julian	(2)	29	15	6
Shaw	(3)	22	12	4
Fontaine	(3)	40	over 20	Not Stated
Cockett	(3)	14	11	Not Stated
Rob	(3)	9	4	5
Warren	(4)	10	7	1
Cooke	(5)	13	3	1
Lape		13	8	None
Total		163	87	17

tempted femoral artery reconstruction have been reported.

- B. Eighty-seven of these are known to be immediate or delayed failures.
- C. Of the seventy-six functioning grafts, only seventeen had already gone a year at the time of reporting.
- D. The percentage of successful grafts twelve months following surgery must therefore fall somewhere between ten and four-tenths per cent, and forty-six and six-tenths per cent.

This seems to be the best picture of the life expectancy of the femoral arterial graft which can be fabricated from the statistics currently available. It is our impression that no one single method, or single group of workers caused profound deviations from the general trend outlined above.

Our emphasis on the twelve month interval in the above calculations is an arbitrary but deliberate one. If an operation is to be offered prophylactically to a person who is getting along fairly comfortably, it seems to me the operation must be very likely to work, and for at least a period of one year.

SUMMARY AND CONCLUSIONS

We do not point to our results in this difficult problem with any great sense of pride. Our own personal figures, however, are not inconsistent with those available from other areas. At present we recommend direct arterial surgery on persons with segmental occlusions of their femoral arteries only if they are facing immediate major amputation, or if ischemic cutaneous ulcers fail to heal with non-operative treatment. In this latter circumstance a graft which works for only a few weeks may permit skin healing, thus providing a foot whose envelope is intact and without infection; some permanent benefit would remain after delayed occlusion of such a graft.

BIBLIOGRAPHY

1. Eastcott, H. H. G.: Arterial Grafting for the Ischemic Lower Limb. Ann. Roy. Coll. Surgeons, England, 13: 177, 1953.

THE CARDIAC SURGICAL PROGRAM AT THE MAINE GENERAL HOSPITAL

RALF MARTIN, M. D., Portland, Maine

THE CLINIC

The first elective surgical operation on the human heart in the Maine General Hospital, Portland, was in February, 1952, and resulted in the successful closure of a patent ductus arteriosus. Since then 69 operations have been performed.

The ground work for this surgery was laid almost a year before the operation with

1. The organization of a special clinic which was called the Surgical Diagnostic Cardiac Clinic and
2. The establishment of the Cardiac Catheterization Laboratory. Both have proved indispensable to the program.

The clinic is staffed by several cardiologists and internists, a pediatrician, a cardiac surgeon and a roentgenologist. Primarily, these are men on the attending staff of the Maine General Hospital but are supplemented by interested cardiologists in other parts of the state. In addition, a consulting cardiologist from another center, usually in New England, is regularly invited to attend and has enthusiastically done so.

In so far as is practical, patients, both public and private, in whom cardiac surgery is contemplated have been examined by this group and a group opinion obtained. Personal physicians, not uncommonly, accompany their patients to the clinic and are encouraged to do so. The clinic is open to anyone and there is no fee.

THE CATHETERIZATION LABORATORY

The Cardiac Catheterization Laboratory has been operating for about the same length of time as the clinic. The cardiac catheterization procedure, where pressure and oxygen determinations are made from inside the heart and great vessels (see figure 1), is expensive and time consuming. It has, nevertheless, proved to be benign in competent hands and yields physiological diagnostic data which is essential in many cases and which can be obtained in no other way. At the present, the laboratory is staffed by three physicians, a technician, and an electronics engineer, who are skilled in their respective positions on the team.

The procedure of cardiac catheterization is, of course, a strictly diagnostic test and is useful in that

1. It may confirm the clinical diagnosis,
2. It may be helpful in determining the degree, extent or severity of the lesion or lesions,
3. It may reveal unsuspected conditions amenable to treatment, either medical or surgical, which

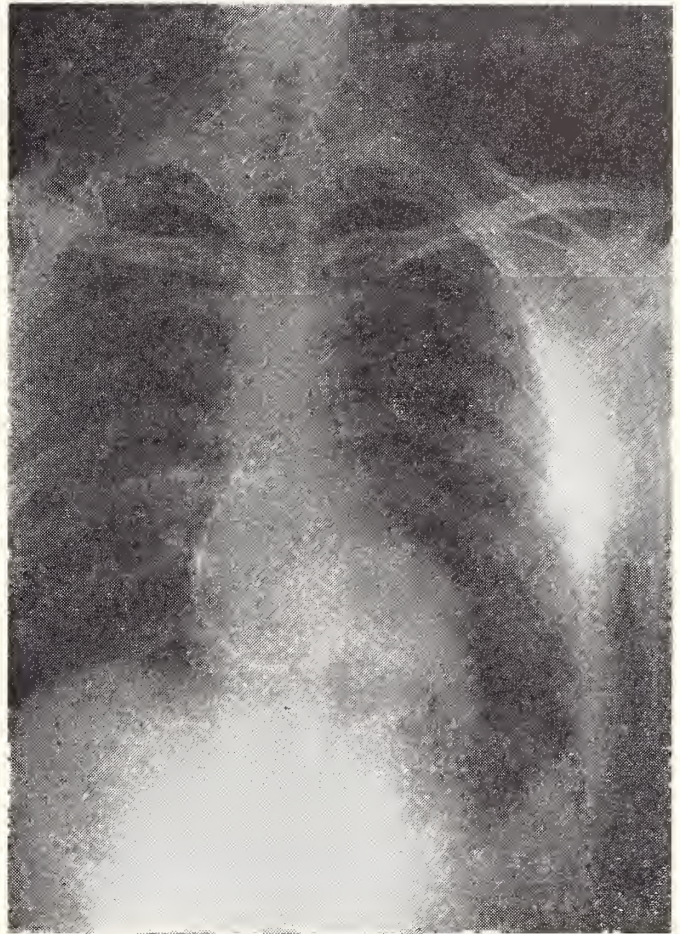


Fig. 1. Catheter in Place.

otherwise would have gone unrecognized and untreated.

In the first instance, that of being able to confirm the clinical diagnosis with a high degree of certainty is comforting to all concerned and, particularly, to the operating surgeon.

The second case, or that of determining the extent or severity of the lesion, is important in advising whether surgery should be attempted at all and if so when it should be done.

In the third instance of revealing unsuspected curable conditions in cases who previously had been considered to have hopeless lesions, the following case histories are interesting:

CASE HISTORIES

Case 1. J. B. was a 5½-year-old child from Lewiston who had been known to have a heart murmur since the age of 14 months. She was markedly undernourished and undeveloped, and severely restricted in her activities. There was a questionable

history of occasional cyanosis. There had been repeated severe respiratory infections. She had been examined by various physicians and had been in and out of hospitals repeatedly.

When examined in the surgical diagnostic cardiac clinic in June, 1953, she had a blood pressure of 106/70. There was a slight prominence of the left chest, scattered rales at the lung bases, and an enlarged liver. The cardiac apex extended to the mid-axillary line in the 6th and 7th interspaces. There was a loud rumbling diastolic murmur at the apex with pre-systolic accentuation ending in a markedly accentuated first heart sound and followed by a grade 3 plus systolic murmur and a thrill. At the base in the pulmonic area was a grade 3 systolic murmur.

The electrocardiogram showed right ventricular hypertrophy and perhaps left ventricular hypertrophy with tall but not peaked P waves and a depressed ST segment in V6.

The X-ray and fluoroscopy showed a huge heart apparently involving both ventricles and the left auricle and a prominent pulmonary artery but no hilar dance. There was pulmonary vascular congestion.

This was obviously a confused picture and opinion ranged all the way from mitral stenosis and mitral insufficiency to ventricular septal defect with relative but not anatomical mitral stenosis to A-V communis or a combination of valvular disease and a shunt.

At cardiac catheterization two weeks later the catheter was fed through to the pulmonary artery and then surprisingly directly into the aorta with identical pressures in both the pulmonary artery and the aorta, establishing, without reasonable doubt, the presence of patent ductus arteriosus. This was confirmed at operation. Since then she has improved markedly but is still left with an additional lesion, the exact nature of which is unknown but which she appears to be tolerating perfectly well.

These surprises occasionally work in reverse as illustrated by the following case:

Case 2. I. P., a 45-year-old housewife, was born a blue baby and had remained cyanotic all her life and was moderately limited in her activities. She was unconcerned about herself, although she had experienced repeated episodes of near syncope and a paralysis of the left side in 1954. Her unconcern stemmed from the opinion that her mother had the same condition and died at the age of 82. She was a frail but comfortable cyanotic woman, weighing 97 pounds, with clubbed fingers and toes. There were areas of telangiectasia over the skin and mucous membranes of the lips and tongue. The B/p was normal and there was only a soft systolic murmur heard along the left sternal border and no apparent cardiac enlargement. There was no evidence of congestive failure.

X-rays showed no enlargement but from films taken elsewhere there was thought to be a prominence of the right ventricular outflow tract. Later our roentgenologist made the astute observation of a diminutive right ventricle while the electrocardiogram showed right ventricular hypertrophy. X-rays of the lungs showed peculiar areas of confluent vascular density. RBC 6.37 m. with 20.5 gms. of hemoglobin and a hematocrit of 65%.

The most likely diagnosis was thought to be hereditary hemorrhagic telangiectasis (Redu-Osler-Weber's syndrome) with arteriovenous fistulae. She was catheterized and found to have a tricuspid atresia with a diminutive right ventricle for which no successful surgical procedure has been devised. Although we will not go into it here, this is an extremely rare case with a tiny right ventricle and yet having an electrocardiogram typical of right ventricular hypertrophy. As far as I know, there is no sound explanation.



Fig. 2. Retrograde Aortogram.

COMMENT

It would appear from the previous remarks that cardiac catheterization is the all-important examination; however, the proper interpretation of electro-

cardiograms is indispensable and the coöperation of the X-ray department geared to our special needs is important. Routine filming is unsatisfactory. X-rays must be taken with particular care and positioning to obtain films in the posterior-anterior, both right and left oblique, and true lateral positions, with barium in the esophagus. These must be interpreted in light of the suspected diagnosis and detailed fluoroscopy by the roentgenologist.

Certain special procedures done in coöperation with the X-ray department are especially useful, as illustrated in the following case:

Case 3. M. L. B., a 3-year-old girl, was known to have a heart murmur since birth. Her respirations had always been rapid and she had had pneumonia twice. When first examined there was a markedly enlarged heart with a pulse rate of 152. The pulmonic second sound was accentuated and there was a grade 4 systolic murmur and a soft diastolic murmur in the 4th interspace just to the left of the sternum. The liver was enlarged, and X-ray of the lungs showed pulmonary vascular congestion.

The electrocardiogram was typical of right ventricular hypertrophy and incomplete right bundle branch block. Cardiac catheterization brought out a bidirectional shunt which was predominantly left to right. Due to cardiac irritability and irregularity no blood samples could be taken from the right ventricular outflow tract. Therefore, it could not be established whether the lesion was due to a high ven-

tricular septal defect or a patent ductus arteriosus. Subsequently a retrograde aortogram (figure 2) established a patent ductus arteriosus and this was confirmed at operation.

This case and also the first one were complicated by other lesions which made the diagnosis difficult and uncertain. If patent ductus arteriosus is present as a single lesion it need seldom be missed by simple physical examination.

CONCLUSIONS

In closing, it might be well to point out that those of us involved in this project do not consider ourselves pioneers in that we have adhered almost entirely to standardized established procedures. While the diagnosis and surgical treatment of all varieties of both congenital and acquired heart disease are under investigation and a variety of surgical operations done, the bulk of the surgical procedures continues to be the ligation of the patent ductus arteriosus in the congenital and mitral valvuloplasty in rheumatic heart disease. We are aware that a large variety of unstandardized procedures are being performed in certain centers and we remain inspired and impressed but are at the present unwilling to accept the current high mortality and uncertain benefits inherent in these techniques. We prefer to await the development of more successful procedures and particularly an adequate, so-called, artificial heart and the attendant open dry field certain to come in the near future.

THE INFANT WITH CLEFT LIP OR CLEFT PALATE

BURTON LEGATE OLMDSTED, M. D., Portland, Maine

INTRODUCTION

Although facial clefts are among the more common of the congenital deformities, occurring about one in seven hundred births, they are seen so infrequently by the average physician, that he is unfamiliar with the problems involved in their care. In fact, many are so alarmed by the rather appalling appearance that they become somewhat panicky and create problems in the care which need not arise. The result is that the family is unnecessarily upset and the infant himself may receive rather harsh methods of care which are entirely unjustified. This brief discussion is an attempt to dispel the veil of mystery which clouds these infants and to arrive at a more rational regimen of care.

The doctor who delivers a child with a facial cleft finds himself faced with unusual considerations and responsibilities. The care of the infant, usually is not so trying as the care of the family. Unless congenital clefts have been a common occurrence in the family, which is seldom the case, the family is upset. They want to know if the child will live, can he eat, can the face be repaired and when, what caused the defect, was it something that the parents did, is it hereditary? The doctor, unfamiliar with clefts generally is unprepared to meet this onslaught of questions.

DESCRIPTION AND DEVELOPMENT

To begin with, what is a congenital cleft? This is a defect in the continuity of the lip or palate, which according to the classic theory, is a failure of fusion of the embryonic structures which form the lip and mouth. At the fifth week of fetal development the oral and nasal cavity are continuous. The maxillary processes from which the sides of the lip, superior alveolus and palate develop, normally fuse before the 8th week with the median nasal process which forms the philtrum of the lip, the part of the alveolus bearing the central incisors, and the columella and septum of the nose. Failure to fuse in part or in whole of these structures forms the clefts which we see. The accuracy of this theory has been questioned, since there is evidence that the deformity is due to a lack of the mesoderm elements only in this region and that separation of the skin and mucous membrane (ectoderm in origin), comes about due to the lack of support of bone and muscle (arising from the mesoderm). This is purely academic.

The end result in either case is some degree of separation of the elements forming the upper lip and the roof of the mouth. This may range from a double complete cleft with a wide open palate exposing both

nasal cavities and with the central part of the lip riding forward on the septum of the nose to those minimal and often undiagnosed clefts consisting of separation of the muscular elements only and manifested by a slight groove along the border of the philtrum of the lip, or by inability of the child to speak clearly when the palate appears to be intact. Any conceivable degree or combination of defects may occur. The defect predominates on the left side and only about one-fourth are bilateral. The presence of other congenital defects must always be suspected. These frequently are much more serious than the cleft of the face and may even be incompatible with life.

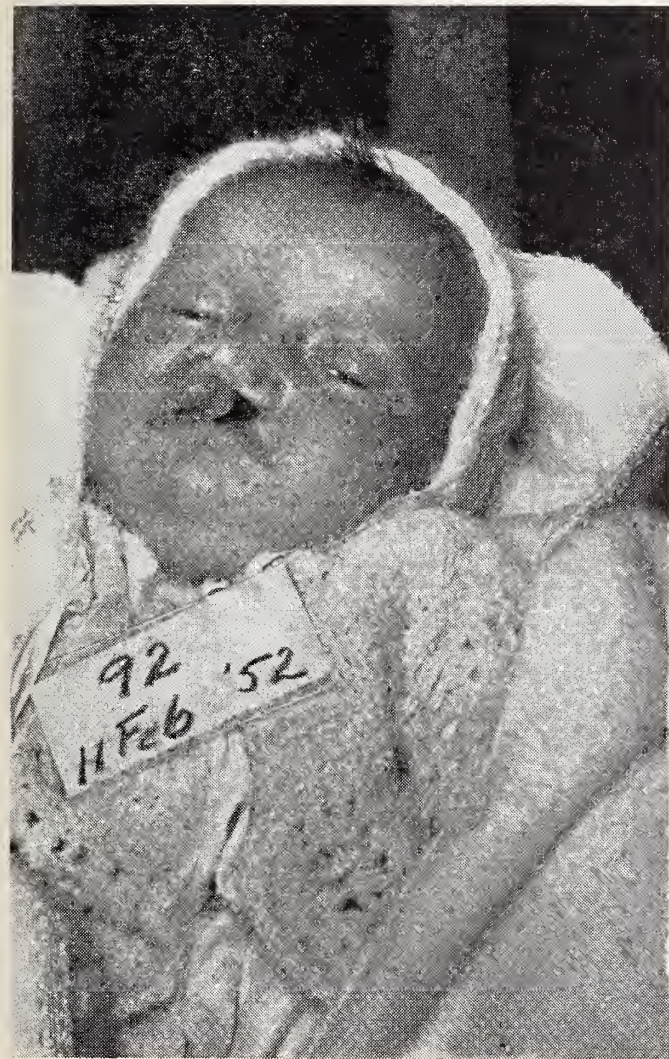
INCIDENCE—FAMILY TENDENCY

Very frequently, the child with a cleft is the only such person in the family. There will be no known record of congenital defect among his ancestors or relatives. He may also be the first child of a young couple and the question of whether they should have more children is of great concern. This brings up the question of the basic cause. First, the family may be assured that it is not due to anything which the mother may have done, or of any experience which she may have had. However, there frequently was illness during the first two months of the pregnancy which would suggest that a metabolic disturbance or an infection, especially a virus infection, may have been a cause. Heredity definitely is important. The appearance of clefts seems to follow that of a recessive character. It is frequently seen in the ratio of 1:4 among the children of a family in which neither parent has a cleft; 1:2 if one parent has a cleft; and in all the children if both parents have a cleft. It is possible for all the children to be normal if one parent has a cleft.

Giving advice is difficult as we must decide whether the cleft is hereditary, or whether some exogenous force has produced it. Frequently we have no way of knowing. However, since the probability of further offspring being normal is good, and the advantage of siblings in the family to the child so great, we usually advise in favor of larger families. Every effort should be made to give these children a normal life and treat them as normal children.

MEASURE OF DISABILITY

The actual amount of physical disability that the infant has is less than it would appear. As yet, I have seen but one handicap in an infant with a facial cleft if he had no other congenital defect. This is the in-



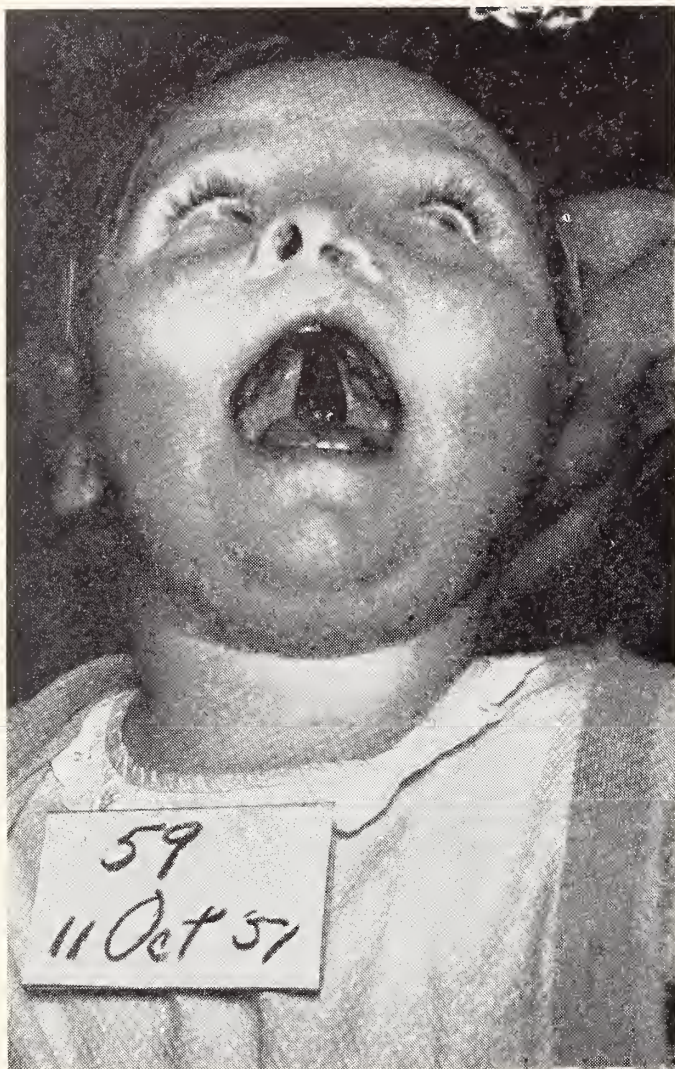
ability to suck. In order to suck, one must be able to produce a partial vacuum by pulling the tongue downward away from the intact roof of the mouth. If air enters the mouth from the nose through an imperfect hard palate, or because of inability to close the mouth from the nose in the pharynx with the soft palate, or if air enters through imperfect lips, then the vacuum is broken and sucking cannot occur. However, the child has no difficulty in swallowing whatever liquids arrive at his oral pharynx. This reduces the problem of feeding only to one of placing formula in the back of the mouth and allowing the infant to swallow.

I have yet to see an infant who is a feeding problem because of a cleft only, although I have seen several who were problems because of associated defects such as an underdeveloped mandible or a congenital heart defect. These children gag and become cyanotic when they try to eat. I have also seen infants who were made into feeding problems by those who cared for them. One infant, who had been fed by gavage since birth, was rushed a hundred miles by ambulance to the hospital as a severe feeding problem. The distraught father had already made

tentative arrangements with the undertaker since so little hope had been given him. We discharged his otherwise perfect son after allowing him to nurse contentedly from an ordinary nursing bottle in the admitting room.

FEEDING

The method of feeding the child is relatively simple, if the baby is very tiny, a small asepto syringe with a short piece of soft rubber tubing on the end can be used to give the infant such small quantities as he can swallow easily. Most infants, however, do very nicely using an ordinary nursing bottle with a nipple in which a hole about the size of the lead of a pencil has been cut. The bottle is then used as a pitcher, allowing the baby to hold the nipple in his mouth and raising the bottom of the bottle so as to allow a small amount to run into the back of his mouth for each swallow. For vigorous infants with strong jaw motion, a simple device consisting of a collar button type one way valve can be placed in the nipple base which allows the infant to pump the milk from the bottle by squeezing the nipple with his gums. These feeding methods work very well and give the infant the satisfaction of sucking.



It must be remembered that because of the imperfect roof of the mouth, a large amount of air will be swallowed along with the formula. Consequently the child must be burped very frequently to prevent its accumulation in the stomach. If air accumulates, the massive eructation which follows will most assuredly cause regurgitation of most of the formula. Babies who experience difficulty with regurgitation can be fed more frequently and by smaller amounts. Formulas, vitamin preparations, fruit juices and cereals are all given as they would be given to any other child. It is most important that the child get a complete diet as he is being prepared for a rather major surgical operation in which excellent healing is of paramount importance.

GENERAL CARE

The question of whether the child should be taken home from the hospital prior to the surgical repair frequently arises. This is almost always advisable. Generally there will be a period of six to eight weeks before the surgery is to be done. Hospital care for this interval would be quite expensive. It is well for the mother to get to know her baby with his defect so as to appreciate his disability. This gives her a

better understanding of her child's difficulties as they may persist throughout his childhood. It will help her to give the necessary encouragement and guidance which the child will need in overcoming any residual disability there may be after surgery has done what it can to repair the defect. If the child is difficult to feed, I find that a mother's love and patience generally accomplish much more than the endeavors of a nurse pressed for time in the care of many other and usually far sicker children.

Then, what of exposure to infectious diseases at home? It must be remembered that the infant is born with as much resistance to the several contagious diseases as any other normal child and is no more susceptible than the other children. Colds may deal more severely with him because of the increased irritation of the open nasal passages. However, it is better for the child to develop a measure of resistance to upper respiratory infections at home prior to surgery than to arrive at the hospital for surgery with complete lack of resistance due to absence of any exposure, and then to develop a severe cold in the early post-operative period. Lastly, the family will be much happier with the results of a surgical repair and much less disturbed by any of its shortcomings

if they are quite familiar with the defect with which the surgeon had to cope.

PREPARATION FOR SURGICAL REPAIR

The next question with which the parent is concerned is at what age will the cleft be repaired. This varies among children. In general the cleft is repaired when the child is ready for the surgical procedure. He should be in excellent health, eating well and gaining steadily. For the lip repair, which is done first, a minimum of about eight pounds is good but the actual weight is not so important as the size of the face and the parts of the lip to be repaired. The smaller the lip, the less likely we are to obtain a perfectly shaped result. Because we depend on the mild tension of the repaired lip to reduce the gap between the ends of the alveolar ridge in a complete cleft of the lip and palate, it is well to repair the lip fairly early in such a defect.

If, however, the defect is only one of an incomplete cleft of the lip, without separation of the alveolar ridge, there is no physiological need to repair early. The operation can wait indefinitely provided that the defect does not create a psychological hazard, either to the patient directly or to the family, which in turn will reflect on the patient. It is generally expedient to do the repair at about two months. A delay, however, only insures a better surgical result. We insist also that the child's hemoglobin level be quite adequate, that is, better than 10 grams per cent or preferably 11.5 grams per cent or better. This not only insures greater safety of the infant during his anesthetic but also assures the perfect healing of the wound which is necessary to produce a good result. If the blood count cannot be brought up to these standards by administration of hematinics, then the child can be given a transfusion in the hospital either prior to or during the operation.

For the repair of the cleft of the palate, we generally wait until the child is 18 months old or better. Since the main reason for correcting the defect is to give the child the ability to speak, it is not necessary to do the operation before the child is ready to talk. Generally this occurs at about 18 months, although the infant will have been saying "Mama" and "Ahah" (for Dada) for some time previously. We delay the procedure as long as possible since it has been found that many early surgical repairs inhibit the growth of the bones of the mid third of the face and produce the typical "dish face" appearance of the repaired lip and palate which has been seen so frequently. Many surgeons delay operative repair for four or even eight years. However, since this defect has not been prominent among those children repaired by the methods we employ, we feel that it is more important

to allow the child to learn speech with a functioning palate and avoid the terrific handicap of learning a method of speech which attempts to compensate for lack of velo-pharyngeal closure and later learn a correct method to displace the firm habits of incorrect speech.

SERVICES FOR CRIPPLED CHILDREN

Lastly, the parents will be most concerned about the cost of these surgical procedures. Since this is a truly crippling defect, the child of those families who cannot afford private care are eligible for help through the Services for Crippled Children of the Department of Health and Welfare. Application can be made directly to the department by the physician, or by any Public Health nurse who can handle the details. The course of the child's treatment is guided by the Cleft Palate Team which consists of members of the several specialties involved, the pediatrician, the plastic surgeon, the otolaryngologist, the orthodontist, the prosthodontist, the speech therapist, the psychiatrist, the psychologist, the medical social worker, the nutritionist, and the Director of the Services. Simple cases are seen by the several members individually but any involved cases are examined and discussed by the members meeting in a group.

This assures that the child will have the necessary and proper surgery at the right time, followed by speech training to help the child learn to use his repaired palate in the formation of proper speech sounds. Proper dental care is recommended so as to preserve all teeth possible. If these erupt in irregular fashion, the orthodontist's care is called on at the proper time. Difficulties arising in the home, emotional, nutritional or otherwise, are all given attention. Every effort is made to give the child the best possible chance to overcome his disability completely, to take his place among his playmates and to grow to a self reliant and useful citizen.

SUMMARY

A brief discussion of the aspects of the condition of cleft lip and cleft palate pertinent to the family physician is presented. Theories of its origin and causative factors are discussed. The infant's disability, i.e., the inability to suck, is emphasized with methods of feeding to overcome this. A policy for general care is outlined which will lead to the best possible condition for surgery. The timing of the surgical procedures is explained and the role that the State Services for Crippled Children plays in the total program of cleft lip and cleft palate care is described.

The Journal of the Maine Medical Association

THOMAS A. FOSTER, M. D., Portland, Editor

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Behind the Scenes

As we gather again at The Samoset for our annual meeting, we will find the stage properly set and the cast of characters ready for their cues.

We would like to have the members who attend the meetings consider with us for a moment the amount of hard work by the officers and the committees that lies behind the arrangements for the session.

First of all we call attention to the all year round services of our officers. Dr. Robert Belknap, enthusiastic and well seasoned, had prepared two messages for publication in the JOURNAL, one which urged support of the Association at all times and a second which discussed the use and abuse of prepaid voluntary health insurance. Bob gave a great deal of thought and time to the Association. His sudden death so shortly after taking office removed from our midst a valuable and conscientious friend and worker.

The plans of the Association must be carried out and the Constitution provides that the President-Elect be advanced to the President's Chair. The all year around work must go on. Immediately, Dr. Mahaney took over the duties so unexpectedly brought upon him. With energy and understanding gained by his experience as Councilor of the First District and Chairman of the Council, he carried on. With admirable vigor and forthright leadership he has kept the machinery running, attending county meetings, visiting frequently at the Association's office, presiding over many committee meetings and advising the Council. All these assignments entail a lot of time and work.

The Council and House of Delegates

As the Association's year moves along, new questions arise, unforeseen problems appear, the budget must be established, therefore the Council is called upon to meet every two months. These meetings require a great deal of time and earnest discussion, often entail traveling long distances for some coun-

cilors. The Council not only administers the affairs of the Association between meetings but it also scrutinizes amendments which have been proposed, makes appointments, fixes salaries and prepares material for the House of Delegates. The Councilors are all around the year workers.

In recent years with the increase in socio-economic trends which involve the practice of medicine, more time is required from the delegates. Therefore three meetings are held in order to keep things moving. Consequently the delegates from every County Society are called upon to give more time to all year around work.

Committees

Add to all the above mentioned members the Chairman and members of Standing Committees along with special committee groups and we find a large body of workers behind the scenes. In this issue standing committee reports are published. We bespeak your attention to them. They present interesting and important opinions based upon careful studies. The Chairmen of the Committees, whose reports are herein published merit our thanks for work done during the year.

The Secretary-Treasurer and Business Manager of the JOURNAL, in touch with all things, manager of many, boss of the annual meeting exhibits, inexhaustible source of information, worker all day and part of the night all the year around is Mrs. Esther Kennard. She is behind the scenes before, after and during every act of the session.

While we are enjoying the diversified features of the meeting and participating in the business affairs of the Association it would be gracious of us to think a good thought and say a good word for the people who worked faithfully to prepare the program and organize the session.

Merit Rewarded

Long service in itself denotes stability, integrity and understanding. Doctor Lester Adams as noted elsewhere in the JOURNAL this month, has completed thirty-two years of steady, unselfish, loyal service to the patients under his care at the Western Maine Sanatorium.

And his friends and former patients came many miles from towns and villages to express their appreciation and pay tribute to his devotion and skillful treatment. The honor and affection is well deserved by the good doctor.

Now the Chief and his wife will take up residence in a comfortable 19th Century white house near the banks of the Georges River in Thomaston. If you are down that way call in and ask Lester to show you the cauldron in the cellar and the sail-loft over the shed. And ask the mistress to tell you about the pleasure which they have had in collecting antiques and decorating this charming old house.

As a spokesman for the Association, we wish the family, young and old, and the grandchildren, many happy years in their cheerful new home.

Reception for Dr. Lester Adams



The Portland Press Herald on May 9, 1955, published the following account of the reception held May 8th at Greenwood Mountain in Hebron, in honor of Dr. Lester Adams' devoted service of thirty-two years as Superintendent of the Western Maine Sanatorium:

"Townspople of Hebron and West Minot joined with several hundred former patients today at an open house and reception in the Western Maine Sanatorium main auditorium in honoring Dr. and Mrs. Lester Adams. Dr. Adams is retiring Tuesday after 32 years as superintendent of the institution and the couple will leave Greenwood Mountain to reside in Thomaston.

"In the receiving line with Dr. and Mrs. Adams, were their two daughters, Mary Susan, with her husband, Dr. Delbert Jackson, a dentist of Wellesley Hills, Massachusetts, and Sarah Adams, assistant librarian in the rare books department at Yale University.

"Music was provided by an orchestra from Lewiston and refreshments were served.

"H. B. Wells, executive secretary of the Maine Tuberculosis Association, spoke briefly, expressing the thanks of the Association for the many years of active association of Dr. Adams with the organization, and the gratification of the members that Dr. Adams will continue his activity though in retirement.

"Norman U. Greenlaw, Maine Commissioner of Institu-

tions, told the gathering that his department was losing a very valuable superintendent.

"Here is a man who, in practicing his profession, practiced the treatment of the whole individual.' Commissioner Greenlaw concluded, as he added wishes for the utmost happiness in retirement.

"The Rev. John F. Conoley, pastor of the nearby Church of Christ the King, told of his long association with Dr. Adams. 'I have seen the Power of God working through his keen mind,' Father Conoley said. 'He was, is and will be the shining example of a great man, devoted to his chosen work.'

"Father Conoley presented the doctor with a gift from the employees of the Sanatorium and friends, and announced that the employees were presenting the doctor with his office desk he worked behind for 32 years. Mrs. Adams also was presented a gift from the personnel of the institution.

"Dr. Adams was visibly affected as he spoke briefly to the many friends who had gathered to pay homage to him and Mrs. Adams.

"The period from 2 to 5 p. m. was one of many happy meetings as scores of patients of another generation met for the first time in many years. Dr. and Mrs. Adams were the center of many of the groups as events of more than a score and a half of years were recalled.

"Mr. and Mrs. Russell MacKendrick travelled the greatest distance to attend the affair, journeying from their home in Manchester, Connecticut."

We are pleased to have the article reprinted in our JOURNAL and made a part of the records.

STANDING COMMITTEE REPORTS

1954 - 1955

Public Relations Committee

Two meetings of the Public Relations Committee have been held with majority attendance. A third meeting was called and cancelled due to icy roads.

Working on the premise that a well-informed public is most amenable to pleasant public relations the Committee has reviewed conditions in the State of Maine along the following lines:

1. *Emergency Call System*

Inability of patients to secure medical services at all hours has been a source of much unrest throughout the country. Maine has been no exception. However, as of now our larger centers have well-organized and functioning systems, usually with a hospital switchboard as the call center and a list of available physicians who take calls on a rotating basis. So far as we know but few complaints have been registered since the call systems have been started.

2. *Grievance Committee*

This committee functions as a state-wide group and we are not informed relative to its activities. There has been some mild difference of opinion as to how much publicity should be given to a committee of this sort.

It is the feeling of the Public Relations Committee that the public should be more fully informed as to purposes and availability without jeopardizing the usefulness of the grievance committee's work.

3. *Press Relations*

In all sections of the State it is reported that relations with the press are friendly and coöperative. The trend in news today seems to be to satisfy a friendly interest of the public in medical affairs. More items of general information are being presented without disturbing the balance of medical ethics.

4. *Radio, Television and Forums*

Radio programs, with medical commentators, have been used quite freely in the past. The widespread availability of television has opened a new and very valuable approach to the public. In Portland and Bangor, television presentations have been planned or inaugurated. The Penobscot County Association has approved the idea of non-medical sponsors with close supervision and approval of the medical group.

In past years several attempts have been made to set up speakers bureaus with medical men available for presentation of various subjects to the public. This project has not fared well over the years.

A newer approach, which holds promise for better results, is the planning of medical forums. Some of these have been given in other parts of the country either on television or as specially held public meetings, with panel discussions by local doctors, followed by question periods. This plan has been favorably discussed by the Public Relations Committee.

5. *Indoctrination of New Members*

The past two years the Public Relations Committee has sponsored a luncheon, during the sessions of the State Society in June, to which have been invited all members joining during the preceding year. This year it has been announced that the retiring State President will conduct such a meeting. This is a fitting and proper procedure and meets with our hearty approval.

On the County level we feel that each society should take special note of new membership and inform the newcomers relative to the background and aims of each group.

6. *Adoption of "Usual" Fee Schedules*

It has been suggested by A. M. A. that local societies would further good public relations by the adoption and publication of "usual" fees. This subject seems to meet some opposition but should be more fully explored and discussed.

The subject of providing medical care for all regardless of ability to pay has been considered. There are today so many hospitals, clinics and agencies concerned with this phase of medicine that no definite suggestions are available. We do not overlook the tremendous "money value" services already freely rendered by the doctors themselves. Some sort of coördinating committee might well be planned to study this question.

7. *Public Services*

Projects such as health examinations, diabetes and cancer detection, immunization programs, V. D. projects, speech and hearing clinics, safety campaigns, study of convalescent homes, elimination of health menaces, etc., are receiving hearty support and active participation by the doctors of the State. These are all well publicized and add greatly to pleasant public relations between the people and the medical profession.

Conclusion

On the whole, the present Committee feels that Public Relations throughout the state are in a healthy and growing condition.

One overall recommendation is that each County Society should appoint its own Public Relations Committee for action on local conditions. We welcome the newly appointed Medical Director whose oversight and advice can coördinate all activities and add immeasurably to the promotion of pleasant public relations.

Signed:

GILBERT CLAPPERTON, M. D.,
IRVING I. GOODOF, M. D.,
WESLEY N. WASGATT, M. D.,
JOHN R. LINCOLN, M. D.,
FORREST B. AMES, M. D.,
Chairman.

Health Insurance Committee

It has been a real pleasure to work with the members of the Health Insurance Committee—each of whom, without exception, has attended all meetings and has given freely of his time and advice.

I presume it is a truism that the chairman of every committee from the halls of Congress down to the local Ladies' Aid Society, feels that his committee is the most important in his particular organization. Suffice it is to say that this report—dealing as it does with a subject affecting the medical care of our people, and of our own income, should warrant your serious consideration.

Last year the number of people covered by Blue Shield in the State of Maine increased 31%. Health insurance obviously has gained, and will continue to gain, in popularity with our patients. Unfortunately, it seems that some physicians greatly resent insurance companies, fee schedules, or anything else which they believe, rightly or wrongly, comes between them and their patients. However, it would seem that the old saying, "If you can't lick 'em . . . join 'em!" is applicable in this instance. Health insurance is going to continue its growth either because of, or in spite of, us! If we wish to have any control over their methods of business, fees, etc., we must assume our rightful place in the various plans, in order to see that the interest of our patients and of ourselves are protected.

Therefore, your committee wishes to bring the following facts to your attention . . . and to solicit the courses of action you wish us to follow:

Unlike the commercial companies, Blue Shield is a non-profit plan; and, because of this, you, as a participating physician, agreed in your contract to accept pro-rated fees

Continued on page 173

Program

102nd ANNUAL SESSION MAINE MEDICAL ASSOCIATION

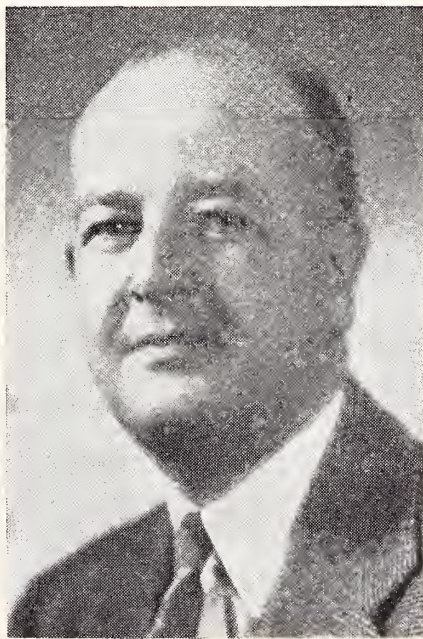
JUNE 19, 20, 21, 1955



THE SAMOSET

ROGKLAND, MAINE

Program Arranged by the Scientific Committee



J. ROBERT DOWNING, M. D.

Chairman

INFORMATION

Registration:

Registration Headquarters throughout the Session will be in the Lobby at The Samoset.

Sunday, June 19—12.00 Noon to 5.30 P. M.

Monday, June 20—8.30 A. M. to 5.30 P. M.

Tuesday, June 21—9.00 A. M. to 5.30 P. M.

Papers:

All papers read before this Association shall be its property for publication in THE JOURNAL OF THE MAINE MEDICAL ASSOCIATION and when read shall be deposited with the Secretary, Esther M. Kennard.

Visiting Delegates:

Introduction of Visiting Delegates will take place at the General Assembly, Monday afternoon, June 20, at 4.00 P. M.

Technical Exhibits:

We want to call your attention to the list of Exhibiting Companies and Representatives which is published in this issue of the JOURNAL. Don't fail to visit each booth and thus express your thanks for their part in making this 102nd annual session possible. You will note that time has been set aside on the program to "Visit Technical Exhibits."

Educational Exhibits:

Maine Cancer Society.

Maine Heart Association.

Maine Tuberculosis Association.

National Foundation for Infantile Paralysis.

Out-of-State Delegates**Connecticut State Medical Society**

Norman H. Gardner, M. D., East Hampton

Stanley B. Weld, M. D., Hartford

Massachusetts Medical Society

Frank R. Ober, M. D., Boston

Edwin T. Wyman, M. D., Boston

New Hampshire Medical Society

Leroy S. Ford, M. D., Keene

Rhode Island Medical Society

Edmund B. Curran, M. D., Providence

Stanley Sprague, M. D., Pawtucket

Vermont State Medical Society

Charles Goyette, M. D., Barre

PROGRAM

Arranged by the Scientific Committee

J. Robert Downing, M. D., Kennebunk, Chairman

Francis H. Sleeper, M. D., Augusta

Lloyd Brown, M. D., Bangor

Sunday, June 19, 1955

12.00 Noon

Registration

2.00 P. M.

First Meeting of the House of Delegates

Martyn A. Vickers, M. D., Acting President-Elect, presiding

5.00 P. M.

Visit Technical Exhibits

6.30 P. M.

Dinner:

SPEAKER: GOVERNOR EDMUND S. MUSKIE

**Monday, June 20, 1955**

9.00 A. M.

Second Meeting of the House of Delegates

Martyn A. Vickers, M. D., Acting President-Elect, presiding

10.00 A. M. to 12.00 Noon

General Session

10.00 A. M.

Presiding—**Francis H. Sleeper, M. D.,** Augusta

SPEAKER: PETER W. BOWMAN, M. D.

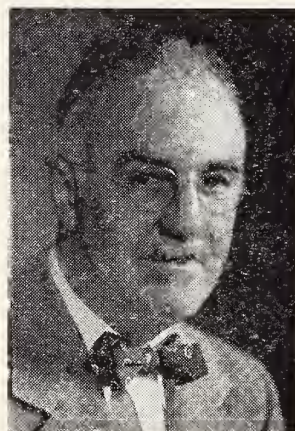
Defective Delinquency in Maine is the subject of Dr. Bowman's address. Dr. Bowman has been Superintendent of Pownal State School since April, 1953. He received his medical degree in 1947 from the George-August University, Goettingen, W. Germany.



11.00 A. M.

Presiding—**J. Robert Downing, M. D.,** Kennebunk

SPEAKER: HOWARD B. SPRAGUE, M. D.



Dr. Sprague received his M. D. from Harvard in 1922. He has been connected with the Cardiac Clinic and Laboratory of the Massachusetts General Hospital since 1924 and is Clinical Associate on the Faculty of Medicine at Harvard. (He is sponsored by the Maine Heart Association.)

Dr. Sprague's subject will be, Factors in the Production of Atherosclerosis.

11.00 A. M.

Maine Society of Anesthesiologists:

Speaker: **Francis X. Mack, M. D.**, Portland

Subject: THE USE OF NISENTIL HYDROCHLORIDE IN THE IMMEDIATE POST OPERATIVE PERIOD

12.00 Noon

Visit Technical Exhibits

12.30 P. M.

Luncheon

Luncheon Meetings:

Meeting of Secretaries of the County Medical Societies

Speaker: **Daniel F. Hanley, M. D.**, Director, Maine Medical Association

Meeting of Board of Directors of the Maine Heart Association

Speaker: **Rome Betts**, Executive Director, American Heart Association

Subject: THE HEART ASSOCIATION AT WORK

2.00 P. M. to 4.00 P. M.

General Session

2.00 P. M.

Presiding—**Lloyd Brown, M. D.**, Bangor

SPEAKER: DONALD S. KING, M. D.



Dr. King, who was graduated from Harvard Medical School in 1918, is Professor of Thoracic Medicine at Dartmouth Medical School. His subject will be Modern Concepts in Treatment of Tuberculosis.

(Dr. King is sponsored by the Maine Tuberculosis Association.)

3.00 P. M.

Presiding—**Maurice Ross, M. D.**, Saco

SPEAKER: LOUIS WEINSTEIN, M. D.

Antibiotics in Pediatrics is the subject chosen by Dr. Weinstein, Haynes Department of Infectious Diseases, Massachusetts Memorial Hospitals. (He is sponsored by the State of Maine Department of Maternal and Child Health.)

4.00 P. M. to 5.00 P. M.

General Assembly

Presiding—**William F. Mahaney, M. D.**, President

Order of Business:

Election of President and President-Elect

Introduction of Visiting Delegates

5.00 P. M.

Visit Technical Exhibits

6.30 P. M.

Clam Bake—followed by dancing

Tuesday, June 21, 1955

9.30 A. M.

Maine Medico-Legal Society Annual Business Meeting:

Reports of Officers

Election of Officers

Speakers:

President Charles E. Towne, M. D., Waterville

Former Attorney General Alexander LaFleur, Mr. LaFleur will present for discussion his views on "A CHIEF MEDICAL EXAMINER FOR MAINE." (This would mean some radical changes in the Medical Examiner Law)

10.00 A. M. to 12.00 Noon

General Session

10.00 A. M.

Presiding—**William F. Mahaney, M. D.**, President

SPEAKER: JOHN L. MADDEN, M. D.



Dr. Madden is Director of the Department of Surgery, St. Clare's Hospital, New York City, and Associate Clinical Professor of Surgery at New York Medical College. He is a Diplomate of the American Board of Surgery and Fellow of the American College of Surgeons.

His subject will be Gall Bladder Disease.

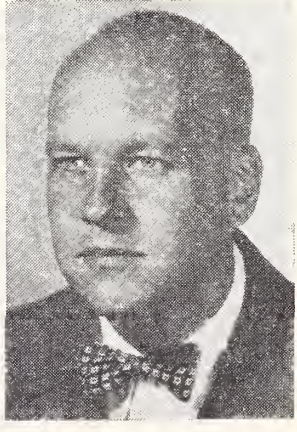
11.00 A. M.

Presiding—**Richard C. Wadsworth, M. D.**, Bangor

SPEAKER: JOSEPH H. BURCHENAL, M. D.

Dr. Burchenal attended Phillips Exeter Academy, Princeton University and received his M. D. from the University of Pennsylvania in 1937. He is at present Professor of Medicine, Sloan-Kettering Division, Cornell University Medical College; and Attending Physician, Memorial Center for Cancer and Allied Diseases, New York City. (He is sponsored by the Maine Cancer Society.)

Dr. Burchenal's subject will be Chemotherapy of Blood Dyscrasias.



12.00 Noon

Visit Technical Exhibits

12.30 P. M.

Luncheon

Luncheon Meeting:

Indoctrination Meeting for new members of the Maine Medical Association

Speaker: **William F. Mahaney, M. D.**, President

2.00 P. M. to 5.00 P. M.

General Session

Maine Medico-Legal Society:

Remarks by **President Charles E. Towne, M. D.**Remarks by **Vice President James B. Perkins, County Attorney**Remarks by **Colonel Robert Marks, Chief of State of Maine Police**Speaker: **Charles F. Branch, M. D., Lewiston**Subject: **THROUGH MAINE WITH ROD AND GUN**Speaker: **A. Warren Stearns, M. D., Professor of Sociology, Tufts College**Subject: **HOMICIDE IN MAINE**

2.00 P. M. to 5.00 P. M.

Maine Heart Association Clinical Program

Presiding—**Elton R. Blaisdell, M. D., President, Maine Heart Association**

CARDIAC CATHETERIZATION

Harold L. Osher, M. D., Portland

HEART PATHOLOGY AND ECG CORRELATION

Wilbur B. Manter, M. D., Bangor**Roland E. Berry, M. D., Bangor**

EXPERIENCES WITH PULMONARY INFARCTION

George J. Robertson, M. D., Waterville

6.30 P. M.

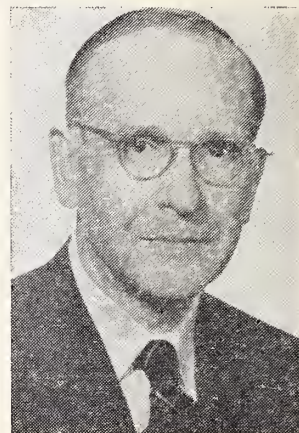
Annual Banquet:

Presentation of medals and awards

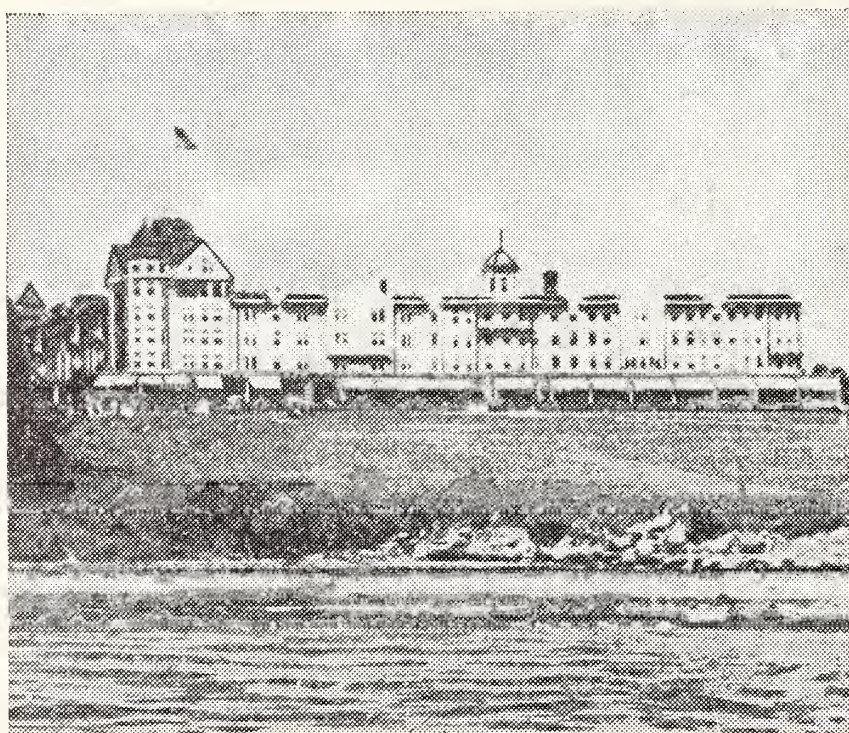
President's Address: **William F. Mahaney, M. D.****SPEAKER: HERBERT ROSS BROWN**

Professor of English, Bowdoin College

Professor Brown was graduated from Lafayette College in Pennsylvania in 1924. He received his Master of Arts degree from Harvard in 1928, his Doctor of Philosophy degree at Columbia in 1939, and an honorary Doctor of Letters degree from Lafayette in 1949. As lecturer, editor and author, he is witty and dynamic; and as an after-dinner speaker, he has few peers.

**SPECIAL NOTICE****GOLF TOURNAMENT**

Francis A. Winchenbach, M. D., Bath, Chairman



THE SAMOSET

COUNTY DELEGATES — 1955

FIRST DISTRICT

Cumberland County Medical Society*Delegates (2 years):*

Albert C. Johnson, M. D., 45 Deering St., Portland
 Daniel F. Hanley, M. D., 58 Federal St., Brunswick
 Philip P. Thompson, Jr., M. D., 704 Congress St., Portland

Albert Aranson, M. D., 39 Deering St., Portland
 Alvin A. Morrison, M. D., 57 Deering St., Portland

(1 year):

Henry M. Tabachnick, M. D., 110 Park Ave., Portland
 Ronald A. Bettle, M. D., 32 Federal St., Brunswick
 William C. Burrage, M. D., 57 Deering St., Portland
 Edward G. Asherman, M. D., 31 Deering St., Portland

Alternates (2 years):

Paul Maier, M. D., 723 Congress St., Portland
 Benjamin Zolov, M. D., 296 Congress St., Portland
 Ralph A. Getchell, M. D., 690 Congress St., Portland
 Norman E. Dyhrberg, M. D., 323 Main St., Cumberland Mills

Paul C. Marston, M. D., Kezar Falls

(1 year):

Eugene C. McCann, M. D., 49 Deering St., Portland
 Albert W. Moulton, Jr., M. D., 180 State St., Portland
 Gisela K. Davidson, M. D., 49 Deering St., Portland
 Harvey B. Ansell, M. D., 38 Deering St., Portland

York County Medical Society*Delegates:*

James H. Macdonald, M. D., 103 Main St., Kennebunk
 Gerald R. Smith, M. D., Ogunquit
 Roger J. P. Robert, M. D., 331 Main St., Saco

Alternates:

Carl E. Richards, M. D., 34 Winter St., Sanford
 Alexander W. Magosci, M. D., York
 Melvin Bacon, M. D., 206 Main St., Sanford

SECOND DISTRICT

Androscoggin County Medical Society*Delegates:*

Aldid F. DuMais, M. D., '57, 125 College St., Lewiston
 Ralph A. Goodwin, M. D., '56, 56 Denison St., Auburn
 Michael J. Harkins, M. D., '56, 437 Main St., Lewiston
 Norman O. Gauvreau, M. D., '57, 78 Pine St., Lewiston

Alternates:

Wirt L. Davis, M. D., 54 Pine St., Lewiston
 John J. Busch, M. D., 105 Elm St., Mechanic Falls
 Charles W. Steele, M. D., 472 Main St., Lewiston
 William V. Cox, M. D., 133 Court St., Auburn

Franklin County Medical Society*Delegate:*

Philip B. Chase, M. D., 36 Main St., Farmington

Alternate:

Paul E. Floyd, M. D., 2 Middle St., Farmington

Oxford County Medical Society*Delegates (2 years):*

Albert P. Royal, Jr., M. D., 82 Maine Ave., Rumford

(1 year):

James A. MacDougall, M. D., 303 Penobscot St., Rumford

Alternates (2 years):

David S. Broughton, M. D., 18 Hartford Ave., Rumford

(1 year):

John F. Hughes, M. D., Dixfield

THIRD DISTRICT

Knox County Medical Society*Delegates:*

Robert L. Allen, M. D., 37 Spring St., Rockland
 William A. McLellan, M. D., 2 Union St., Camden

Lincoln-Sagadahoc County Medical Society*Delegates:*

Stanley R. Lenfest, M. D., Waldoboro
 Arthur A. Nichols, M. D., Wiscasset

FOURTH DISTRICT

Kennebec County Medical Society*Delegates:*

Kurt A. Sommerfeld, M. D., 5 Brunswick Ave., Gardiner
 Loring W. Pratt, M. D., 177 Main St., Waterville
 Kenneth W. Sewall, M. D., 2 School St., Waterville
 Philip Dachslager, M. D., 21 Western Ave., Augusta
 Brinton T. Darlington, M. D., 31 Western Ave., Augusta

Alternates:

Edmund N. Ervin, M. D., 2 School St., Waterville
 Clarence E. Dore, M. D., 65 Temple St., Waterville
 Oakley A. Melendy, M. D., 21 Western Ave., Augusta
 Stephen W. Sanders, M. D., 120 Main St., Winthrop
 Frank B. Bull, M. D., 72 Church St., Gardiner

Somerset County Medical Society*Delegate:*

George E. Sullivan, M. D., R. F. D. No. 1, Fairfield

Alternate:

Howard L. Reed, M. D., 235 Madison Ave., Skowhegan

Waldo County Medical Society*Delegate:*

Foster C. Small, M. D., 169 High St., Belfast

Alternate:

George L. Temple, M. D., 18 Franklin St., Belfast

FIFTH DISTRICT

Hancock County Medical Society*Delegates:*

James H. Crowe, M. D., 121 Main St., Ellsworth
 Marcus A. Torrey, M. D., 75 State St., Ellsworth

Alternates:

Philip L. Gray, M. D., Blue Hill
 W. Edward Thegen, M. D., Elm Street, Bucksport

Washington County Medical Society*Delegate:*

John T. Metcalf, M. D., Calais

Alternate:

Oscar F. Larson, M. D., Machias

SIXTH DISTRICT

Aroostook County Medical Society*Delegates:*

Herrick C. Kimball, M. D., Box 372, Fort Fairfield
 Clement L. Donahue, M. D., 3 Prospect St., Caribou
 Rosario A. Page, M. D., 18 Sweden St., Caribou

Alternates:

Clyde I. Swett, M. D., 18 Sherman St., Island Falls
 P. L. B. Ebbett, M. D., Houlton
 Gerald H. Donahue, M. D., 4 Station St., Presque Isle

Penobscot County Medical Society*Delegates:*

Wesley C. McNamara, M. D., 8 Lee St., Lincoln
 Robert J. Barrett, Jr., M. D., 209 State St., Bangor
 Richard C. Wadsworth, M. D., 489 State St., Bangor
 Wilbur B. Manter, M. D., 1 Fern St., Bangor
 Richard V. Duffey, M. D., 255 North Main St., Brewer

Alternates:

Carl W. Ruhlin, M. D., 205 French St., Bangor
 Hans Weisz, M. D., 196 Main St., Lincoln
 Arthur N. Lieberman, M. D., 180 Broadway, Bangor
 Wilfred I. Butterfield, M. D., 119 Main St., Lincoln
 Donald F. Macdonald, M. D., 263 State St., Bangor

Piscataquis County Medical Society*Delegate:*

Ralph C. Stuart, M. D., Guilford

Alternate:

Linus J. Stitham, M. D., 50 Main St., Dover-Foxcroft

PROGRAM

Woman's Auxiliary

to the

Maine Medical Association

Seventh Annual Convention, June 19, 20, 21, 1955

The Samoset—Rockland, Maine



MRS. BARDEN

REGISTRATION

Sunday, June 19—1.00 P. M. to 6.00 P. M.
Monday, June 20—9.00 A. M. to 5.00 P. M.
Tuesday, June 21—9.00 A. M. to 10.30 P. M.

SUNDAY, JUNE 19, 1955

5.00 P. M. to 7.00 P. M.

Punch Party—Honoring National President, Mrs. Mason G. Lawson

MONDAY, JUNE 20, 1955

10.00 A. M.

Executive Board Meeting

10.30 A. M.

Annual Meeting—Mrs. Frank W. Barden, President of the Woman's Auxiliary to the Maine Medical Association, presiding

12.00 Noon

Meeting of county treasurers with state treasurer, Mrs. Linus J. Stitham

1.00 P. M.

Annual Luncheon

2.30 P. M.

Bates Style Show

TUESDAY, JUNE 21, 1955

Executive Board Meeting
Boating, Sailing and Golf
See Bulletin Board for further information

NOTICE

See the Maine Medical Association program for details regarding the evening sessions.

CONVENTION COMMITTEE CHAIRMEN

Registration:

Mrs. Wesley N. Wasgatt
Mrs. Gilmore W. Soule
Mrs. Oram R. Lawry, Jr.
Mrs. C. Harold Jameson
Mrs. Frank W. Kibbe
Mrs. William A. McLellan
Mrs. Paul A. Millington
Mrs. Herman J. Weisman
Mrs. Parker Heath
Mrs. David V. Mann
Mrs. Howard L. Apollonio
Mrs. Donald B. Hawkins
Mrs. Edward K. Morse
Mrs. Robert L. Allen
Mrs. Frederick C. Dennison

Program:

Mrs. Herman J. Weisman

Golf:

Mrs. Robert L. Allen

Boating:

Mrs. Howard L. Apollonio
Mrs. Frederick C. Dennison

Punch Party:

Mrs. Edward K. Morse
Mrs. Robert L. Allen
Mrs. Oram R. Lawry, Jr.
Mrs. Parker Heath

TECHNICAL EXHIBITS

- Abbott Laboratories, North Chicago, Illinois**
Mr. J. W. Addington, Associate General Sales Manager

A. S. Aloe Company, 1831 Olive St., St. Louis 3, Missouri

American Ferment Co., Inc., 1450 Broadway, New York 18, N. Y.
Representatives, Mr. G. H. Shaw, Mr. F. P. Cavanaugh

Ames Company, Inc., 819 McNaughton Ave., Elkhart, Indiana
Representatives, Mr. Robert L. Lafond, Mr. Vincent J. Pigors

Ayerst Laboratories, 22 East 40th St., New York 16, N. Y.
Representative, Mr. Edward C. McMahon

The Baker Laboratories, Inc., 4614 Prospect Ave., Cleveland 3, Ohio
Representatives, Mr. H. W. Baker, Jr., Mr. Harry Cleveland

Chester A. Baker, Inc., 295 Huntington Ave., Boston 15, Mass.
Representative, Mr. Joseph Pierce

Beech-Nut Packing Company, 217 West 19th St., New York 11, N. Y.
Representatives, Miss Marcia Berg, Miss Kathleen Maguire

Elmer N. Blackwell, Surgical Appliance Specialist, 207 Strand Bldg., Portland 3, Maine
Representative, Mr. Elmer N. Blackwell

The Borden Company, 350 Madison Ave., New York 17, N. Y.
Mr. Ted Miller, Advertising Manager

Brewer & Company, Inc., 67 Union St., Worcester 8, Mass.
Representatives, Mr. Joseph C. Hearn, Mr. Walter L. Spaulding

Buffington's Inc., Worcester 8, Mass.
Representatives, Mr. Samuel A. Simonton, Mr. Charles W. Rich

Burroughs Wellcome & Co. (U.S.A.) Inc., 1 Scarsdale Rd., Tuckahoe 7, N. Y.
Representatives, Mr. C. D. Weed, Mr. R. L. McQuillan

Carnation Company, Carnation Bldg., Los Angeles 36, Calif.
Representatives, Mr. William L. Galatas, Mr. Charles F. Marston, Mr. Max E. Turner
- Chicago Pharmacal Company, 5547 Ravenswood Ave., Chicago, Illinois**
Representative, Mr. Ray F. Driscoll

Ciba Pharmaceutical Products, Inc., 556 Morris Ave., Summit, N. J.
Representative, Mr. J. W. Slayter

The Coca-Cola Company, Atlanta 1, Georgia
Representative, Mr. James T. Beers

F. A. Davis Company, 1914-16 Cherry St., Philadelphia 3, Pa.
Representative, Mr. Robert M. Richter

DoHo Chemical Corporation, 100 Varick St., New York 13, N. Y.
Representative, Mr. Irving Hahn

C. B. Fleet Co., Inc., 921-927 Commerce St., Lynchburg, Va.
Representative, Mr. William P. Ferrell

Geo. C. Frye Co., 116 Free St., Portland, Maine
Representatives, Mr. Sidney F. Cheney, Mr. Claude W. Lamson, Mr. Millard S. Webber, Mr. Hubert A. Honan, Mr. John Kimball, Mr. Milton S. Kimball

Hoffman-LaRoche, Inc., Roche Park, Nutley 10, N. J.
Representative, Mr. Paul Kenaley

Holland Rantos Company, Inc., 145 Hudson St., New York 12, N. Y.
Representatives, Mr. George Clark, Mr. Philip Frank

H. P. Hood & Sons, 500 Rutherford Ave., Boston 29, Mass.
Representatives, Miss Bertha I. Hughes, Miss Helen M. Pettingell

Ives-Cameron Company, Inc., 1401 Walnut St., Philadelphia 2, Pa.
Representatives, Mr. Leigh Abrams, Mr. Harold Webb

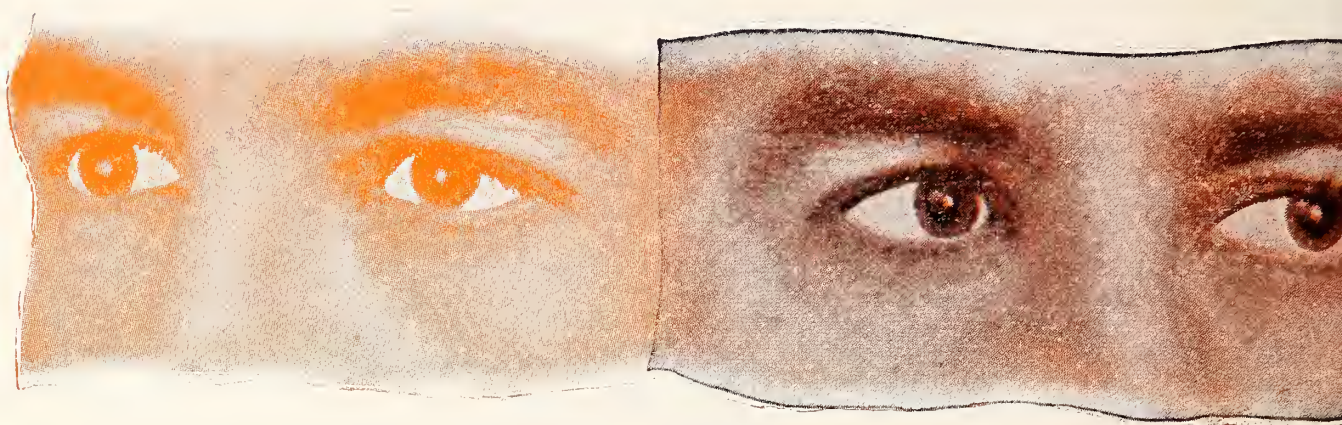
Lederle Laboratories Division, American Cyanamid Co., Pearl River, N. Y.
Representatives, Mr. Rocco Maffei, Mr. Donald Currier

Eli Lilly and Company, Indianapolis 6, Indiana
Representatives, Mr. W. W. Tulloch, Mr. R. J. Dalton, Mr. E. C. Webber

M & R Laboratories, Columbus 16, Ohio
Representative, Mr. Charles Quinn

Continued on page 172

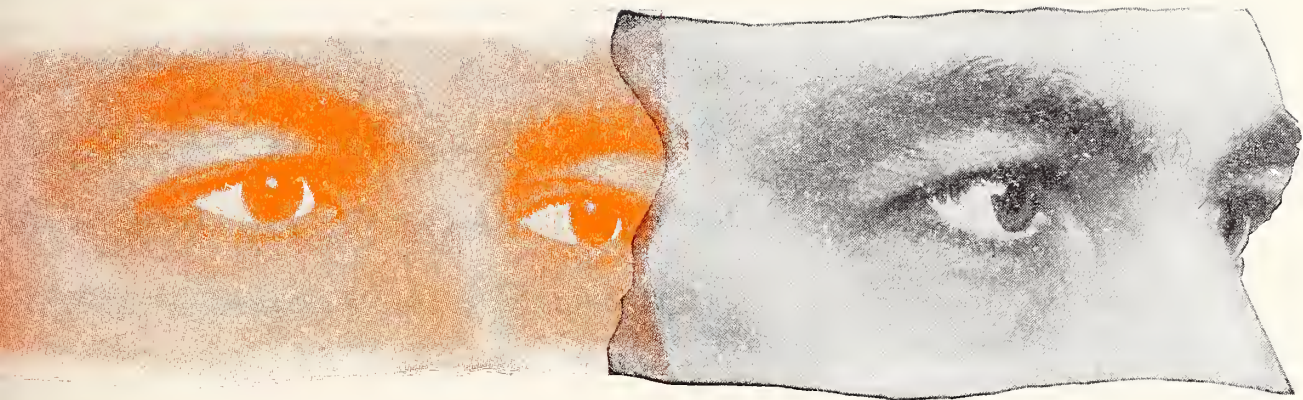
MORE AND MORE PHYSICIANS ARE TURNING



ACHRO

WHEN A BROAD-SPECTRUM ANTIBIOTIC IS INDICATED





ACHROMYCIN*

HYDROCHLORIDE
TETRACYCLINE HCl LEDERLE

Within the first few months of its introduction, ACHROMYCIN was being widely prescribed. Each succeeding month has seen its usage increase as more physicians have come to know and value ACHROMYCIN in its many dosage forms.

More than a year of widespread use has established ACHROMYCIN as a true broad-spectrum antibiotic, well tolerated by both young and old. It has proved effective against a wide variety of infections caused by Gram-positive and Gram-negative bacteria, rickettsia, and certain viruses and protozoa. Compared to certain other antibiotics, ACHROMYCIN provides more rapid diffusion; it is also more soluble, and, once in solution, more stable.

Truly, ACHROMYCIN has become a major weapon in the fight against disease.

LEDERLE LABORATORIES DIVISION *AMERICAN Cyanamid COMPANY* Pearl River, New York

*REG. U.S. PAT. OFF.

Technical Exhibits—Continued from page 169

- E. F. Mahady Company, 851-859 Boylston St., Boston 16, Mass.**
Representatives, Mr. Paul Joyce, Mr. Charles Perkins
- Maine Surgical Supply Co., 233 Vaughan St., Portland, Maine**
Representatives, Mr. John H. Lacy, Mr. Leo C. Curran, Mr. Alfred R. Burr
- Mead Johnson & Company, Evansville 21, Indiana**
Representative, Mr. Angus D. MacLean
- The Wm. S. Merrell Company, Cincinnati 15, Ohio**
Representatives, Mr. Joseph F. Crozier, Mr. Kenneth McConnell
- Milex of New York, 45-45 44th St., Long Island 4, N. Y.**
Representative, Mr. George W. Sutton
- The P. J. Noyes Company, Lancaster, N. H.**
Representative, Mr. Louis E. Bragg
- Otis Clapp & Son, Inc., 439 Boylston St., Boston 16, Mass.**
Representative, Mr. Herbert A. Johnson
- Parke, Davis & Company, Detroit 32, Michigan**
Representative, Mr. Merrill Dole
- Pfizer Laboratories, 630 Flushing Ave., Brooklyn 6, N. Y.**
Representatives, Mr. Leonard Robinson, Mr. Howard Stimets
- Thomas W. Reed Company, 533 Commonwealth Ave., Boston 15, Mass.**
Representative, Mr. John F. Walsh
- A. H. Robins Company, Inc., 1407 Cummings Drive, Richmond 20, Va.**
Representatives, Mr. George W. Wagner, Mr. E. L. Bender, Jr.
- J. B. Roerig and Company, 536 Lake Shore Drive, Chicago 11, Illinois**
Representatives, Mr. Clarence J. Johnson, Mr. Duane I. Wilson
- W. B. Saunders Company, West Washington Sq., Philadelphia 5, Pa.**
Representative, Mr. Joseph Juneman
- Schering Corporation, 2 Broad St., Bloomfield, N. J.**
Representatives, Mrs. Ruth Roffe, Mr. Paul Micali
- Julius Schmid, Inc., 423-439 West 55th St., New York 19, N. Y.**
Representatives, Mr. S. A. Baker, Mr. Darrell Duffey, Mr. Stillman Weston
- G. D. Searle & Co., P. O. Box 5110, Chicago 80, Illinois**
Representatives, Mr. H. J. Warnecke, Mr. J. J. Pash, Mr. A. L. Grimes
- Sharp & Dohme (Division of Merck & Co., Inc.) Philadelphia 1, Pa.**
Representative, Mr. Robert Baxendale
- E. R. Squibb & Sons, 745 Fifth Ave., New York 22, N. Y.**
Mr. Harald Tonnessen, Mgr., Professional Exhibits Dept.
- Surgeons' and Physicians' Supply Co., 961 Commonwealth Ave., Boston 15, Mass.**
Representative, Mr. Charles H. Joy
- Tailby-Nason Company, 49 Amherst St., Boston 42, Mass.**
Representative, Mr. Richard W. Cuthbert
- U. S. Vitamin Corporation, 250 East 43rd St., New York 17, N. Y.**
Representatives, Mr. Douglas Hague, Mr. William G. Moran, Jr.
- Winthrop-Stearns, Inc., 1450 Broadway, New York 18, N. Y.**
Representatives, Mr. Edward F. Kittredge, Mr. Edmond J. Adams, Mr. Robert W. Blanchard

**IF ADVERTISED IN THE
JOURNAL
IT IS GOOD**

Committee Reports—Continued from page 162

if it became necessary. In other words, you are underwriting the plan—and therefore, have a very direct and monetary interest in its success or failure!

Again, unlike commercial companies, Blue Shield has no laws to protect it against excessive claims. With a fire insurance company, for instance, you have a law regarding friendly and unfriendly fires . . . one might say that Blue Shield has no protection against "unfriendly" medical and surgical procedures.

In 1954, for members having Blue Cross only, there were only 117 hospital admissions per 1000 member years; for those who had Blue Shield also, there were 159 admissions. Thus it would seem fair to state that Blue Shield in Maine is being over-used. Undoubtedly, local problems exist, but it is to you, as the physician, to whom we must look for control of usage.

During last year, the Blue Shield plan made total payments of \$843,021.; approximately 57% went for surgical payments; 15% for in-hospital medical service; 5% for dental services; and the remaining 23% for other covered services such as anesthesia, consultations, etc. In evaluating these figures, it is necessary to bear in mind that Blue Shield was designed primarily as a surgical and obstetrical plan and that medical benefits, which are actuarially more difficult to predict, were added as fringe benefits. The surgical experience for this plan is about comparable with the national average. However, there is in Maine a sharp increase in the number of short-stay-in-hospital medical services.

Last year the Blue Shield plan operated at a small deficit, which threatens to become larger unless there is a contract change, which it is proposed to make within the next few weeks. Under this proposed new contract—dental services are to be markedly curtailed, effecting a saving of around \$40,000. Some sort of deductible feature is planned for in-patient medical services. Several have been proposed and discussed by this committee. The one we recommend provides that no payment be made to the physician for hospital stays of 3 days or less. However, an additional emergency payment of from \$5. to \$25. may be made upon submission of proof that additional services were needed and rendered by the attending physician at any time during the hospital stay. This would provide for the acutely ill patient requiring several visits daily, extra services such as transfusions, infusions, Wagenstein, etc. Such a clause, your committee feels, would have the effect of discouraging some of the more questionable hospital admissions — will save Blue Shield money, and at the same time, mean a saving for Blue Cross, indirectly benefiting Blue Shield.

Adjustments of apparent inequities in some fees were made at the May committee meeting, and these are to be submitted to representative specialists for their opinion prior to the issuing of the new contract.

There are those in our association who feel that the 12% of earned income of Blue Shield retained by the Associated Hospital Service for administration is excessive. Your committee can only tell you that it is about the national average for similar plans. However, we are neither actuaries, nor accountants, and if there does exist reasonable doubt of the business practices of the plan, it is within our province at this meeting to appropriate funds and have an independent audit. If this is the wish of the delegates, we hope such action will be taken at the June Meeting. If not, we must accept the Associated Hospital Services' picture of the plan's finances; and decide where savings can best be effected.

It is your committee's opinion that the present income limits of \$2000. for a single person; and \$3000. for a married couple are unrealistic; and that greater coverage could be obtained, and therefore more income, by bringing them more in line with other New England states. We, therefore, are causing a resolution to be brought before the Resolution Committee to that effect.

It would further seem desirable to the committee that some acceptable modification of the present form of agreement with Participating Physicians be made—in order to make the Plan more readily amendable. Occasions arise,

and will continue to arise, whereby greater flexibility would be possible if the House of Delegates saw fit to give the Health Insurance Committee a sort of "power of attorney" as a "Professional Policy Committee." Any action taken by such a committee would, of course, be subject to acceptance, or rejection, by the individual Participating Physicians. Such a resolution is to be introduced.

Your committee is aware that the present premium rates of Blue Shield makes the plan prohibitive for the very low income bracket, and we are urging the Associated Hospital Service to consider the issuance of two plans—one with lower premiums and lower fees; the other with correspondingly higher premiums and fees. However, this is not envisioned practical in the near future.

In conclusion, let me repeat what we wrote to every doctor in February of this year: This is OUR plan . . . There are eight doctors, all vitally interested, on the Board of Directors of Blue Cross-Blue Shield, and your Insurance Committee has a definite hand in controlling its policies, as they affect physicians. If we are to succeed in our plans, and not merely render lip service to our ideals, we MUST have the coöperation of the entire profession.

Respectfully submitted,

LINUS J. STITHAM, M. D.,
Chairman.

Legislative Committee

The Legislative Committee has functioned under many handicaps this year due to circumstances beyond its control. The Executive Secretary of the Maine Medical Association, Mr. W. Mayo Payson, resigned in the midst of the session of the Maine Legislature and for several weeks the Association did not have a lobbyist present. On April 18, 1955, Mr. Robert W. O'Connor of Augusta was retained as lobbyist for the Maine Medical Association for the remainder of the current session of the legislature.

The Legislative Committee met on February 9, 1955, and April 27, 1955. The meetings were confined to consideration of bills pending in the legislature and the course of action planned in regard to the various bills. Our primary concern was to defeat the bill L. D. 1069, An Act Relating to Chiropractic Treatment Under Workman's Compensation Law; and L. D. 499, An Act Relating to Medical Services Under the Compensation Act. The committee gave active support to L. D. 1276, An Act Creating Hospital Service for the Indigent, and L. D. 553, An Act Relating to Admittance of and charges for Patients at State Sanatoriums. The Podiatrist submitted a bill to the committee for consideration and the committee recommended various changes in the bill which were made and no further action taken. During the present session of the Maine Legislature numerous bills have been presented that affected directly or indirectly all medical practitioners in Maine but in most instances the committee was by-passed.

At the time of the writing of this report the Maine Legislature is still in session and final action has not been taken on many of the pending bills. However, the Chiropractor bill has been definitely defeated for this session but am sure it will come up again in future legislatures. We must remain on guard.

The American Medical Association has been doing a good job with legislation in Congress this year and we have not been called on for any direct action.

In view of the experiences of this committee during the past year it is deemed wise to offer some recommendations to assist future legislative committee's in the performance of their task.

1. In order to carry out the committee's function to the best advantage, it is deemed essential to have close coöperation between all committees of the Maine Medical Association and the Board of Medical Examiners. All bills pro-

Continued on page 179

COUNTY SOCIETIES

Androscoggin

President, Otis B. Tibbetts, M. D., Auburn
Secretary, Wirt L. Davis, M. D., Lewiston

Aroostook

President, John R. Osborne, M. D., Houlton
Secretary, Clyde I. Swett, M. D., Island Falls

Cumberland

President, Francis M. Dooley, M. D., Portland
Secretary, Stanley E. Herrick, M. D., Portland

Franklin

President, Paul A. Fichtner, M. D., Rangeley
Secretary, Paul E. Floyd, M. D., Farmington

Hancock

President, Dwight Cameron, M. D., Northeast Harbor
Secretary, Arthur M. Joost, Jr., M. D., Bucksport

Kennebec

President, Wilson H. McWethy, M. D., Augusta
Secretary, Arch H. Morrell, M. D., Augusta

Knox

President, Frank W. Kibbe, M. D., Rockland
Secretary, Verla E. Worthing, M. D., Thomaston

Lincoln-Sagadahoc

President, Thomas E. Proctor, M. D., Boothbay Harbor
Secretary, John F. Andrews, M. D., Boothbay Harbor

Oxford

President, Harry L. Harper, M. D., South Paris
Secretary, Peter B. Aucoin, M. D., Rumford

Penobscot

President, Asa C. Adams, M. D., Orono
Secretary, Herbert C. Scribner, M. D., Bangor

Piscataquis

President, Norman H. Nickerson, M. D., Greenville
Secretary, Charles N. Stanhope, M. D., Dover-Foxcroft

Somerset

President, William B. Grow, M. D., Fairfield
Secretary, Harland G. Turner, M. D., Norridgewock

Waldo

President, Seth H. Read, M. D., Belfast
Secretary, Raymond L. Torrey, M. D., Searsport

Washington

President, Edwin B. Johnston, M. D., St. Stephen, N. B.
Secretary, Karl V. Larson, M. D., East Machias

York

President, Robert D. Vachon, M. D., Sanford
Secretary, C. W. Kinghorn, M. D., Kittery

COUNTY SOCIETY NOTES

Hancock

April 13, 1955

The April meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth. There were ten members and five guests present.

The meeting was opened by the President, Dr. Dwight Cameron, who introduced Dr. William F. Mahaney, President of the Maine Medical Association. Dr. Mahaney spoke briefly on several matters pertaining to the State Association.

The meeting was then turned over to Dr. Mason Trowbridge, who acted as moderator of a panel discussion on Animal Reservoirs of Human Disease. The panel consisted of Dr. Richard C. Wadsworth, Pathologist, Eastern Maine General Hospital, Dr. Harold L. Chute, Associate Animal Pathologist, University of Maine, Dr. E. R. Hitchner, Professor of Bacteriology and Biochemistry, University of Maine, and Dr. Edward G. Sadler, D.V.M. of Ellsworth. Dr. Trowbridge introduced each topic with a pertinent question to one of the experts, and following his reply there was further comment and questions. Among the diseases discussed were Brucellosis, Psittacosis, Salmonellosis, Rabies and Cat-scratch Fever.

May 11, 1955

There were thirteen members and one guest present at the May meeting of the Hancock County Medical Society, which was held at the Hancock House, Ellsworth. The meeting was opened by the President, Dr. Dwight Cameron.

The appointment of Dr. Daniel F. Hanley to replace W. Mayo Payson as Executive Secretary of the Maine Medical Association was announced. Dr. James H. Crowe, delegate to the Maine Medical Association, asked for comments on the proposed budget of the M. M. A. for 1955-1956. Dr. Cameron suggested a summer outing for the society which was approved.

The scientific program for the evening consisted of a Clinico-Pathological Conference with Dr. Charles H. Knickerbocker of Bar Harbor, discussing the clinical features of the case, following which Dr. Nelson P. Blackburn, Assistant Pathologist, Eastern Maine General Hospital, discussed the pathological findings and showed illustrative slides.

ARTHUR M. JOOST, JR., M. D.,
Secretary.

Oxford

June 1, 1955

The semi-annual meeting of the Oxford County Medical Society was held at the Hotel Stone, Norway, Maine, on Wednesday, June 1st.

Robert O. O'Connor, Esq., of Augusta, was the guest speaker for this occasion. Mr. O'Connor's subject was Medical-Legal Problems.

Penobscot

May 17, 1955

The May meeting of the Penobscot County Medical Society "to honor the distaff side," was held at the Penobscot Valley Country Club.

The program for this event included a cocktail hour from 6.30 to 7.30 P. M., followed by a "deluxe buffet dinner," a non-medical speaker, and music provided by Norman Lambert.

PRO-BANTHINE® IN DUODENAL ULCER



Cross section of active duodenal ulcer.

Dramatic Remission of Ulcer Pain

Pain of ulcer is associated with hypermotility; the pain is relieved when abnormal motility is controlled by Pro-Banthine.

"In studying¹ the mechanism of ulcer pain, it is obvious that there are at least two factors which must be considered: namely, hydrochloric acid and motility.

"... our studies indicate that ulcer pain in the uncomplicated case is invariably associated with abnormal motility....

"Prompt relief of ulcer pain by ganglionic blocking agents... coincided exactly with cessation of abnormal motility and relaxation of the stomach."

Pro-Banthine Bromide (β -diisopropylaminoethyl xanthene-9-carboxylate methobromide, brand of propantheline bromide) is a new, improved, well tolerated anticholinergic agent which consistently reduces hypermotility of the stomach and intestinal tract. In peptic ulcer therapy² Pro-Banthine has brought about dramatic remissions, based on roentgenologic evidence. Concurrently there is a reduction of pain, or in many instances, the pain and discomfort disappear early in the program of therapy.

One of the typical cases cited by the authors² is that of a male patient who refused surgery despite the presence of a huge crater in the duodenal bulb.

"This ulcer crater was unusually large, yet on 30 mg. doses of Pro-Banthine [q.i.d.] his symptoms were relieved in 48 hours and a most dramatic diminution in the size of the crater was evident within 12 days."

Pro-Banthine is proving equally effective in the relief of hypermotility of the large and small bowel, certain forms of pylorospasm, pancreatitis and ureteral and bladder spasm. G. D. Searle & Co., Research in the Service of Medicine.

1. Ruffin, J. M.; Baylin, G. J.; Legerton, C. W., Jr., and Texter, E. C., Jr.: Mechanism of Pain in Peptic Ulcer, *Gastroenterology* 23:252 (Feb.) 1953.

2. Schwartz, I. R.; Lehman, E.; Ostrove, R., and Seibel, J. M.: A Clinical Evaluation of a New Anticholinergic Drug, Pro-Banthine, *Gastroenterology* 25:416 (Nov.) 1953.

SEARLE

Piscataquis
May 19, 1955

The members of the Piscataquis County Medical Society and their wives met at Dr. Charles N. Stanhope's in Dover-Foxcroft, for a social hour at 6.00 P. M. on Thursday, May 19th, preceding the dinner meeting of the society at the Blethen House.

York
May 18, 1955

A regular meeting of the York County Medical Society was held at Alfred on Wednesday, May 18th. A social hour at the home of Dr. Carl E. Richards was followed by dinner at the Alfred Congregational Church.

A report of the interim meeting of the Maine Medical Association House of Delegates was followed by an interesting question and answer period concerning state association matters.

There were twenty members and three guests present.

C. W. KINGHORN, M. D.,
Secretary.

New Members
Knox

Merrill J. King, M. D., 22 White Street, Rockland.

Lincoln-Sagadahoc

Clarence R. O'Crowley, M. D., South Bristol.

Penobscot

Edward B. Babcock, M. D., Bellevue Hospital, New York 16, N. Y.

(After July 1—115 Wilson St., Brewer.)

Aroostook

Harry L. Day, M. D., Houlton.

Michael D. Joyce, M. D., Caribou.

Leland M. White, M. D., Caribou.

Andre Sterlin, M. D., Fort Kent.

Deceased
Cumberland

William Holt, M. D., Portland—May 18, 1955.

In Memoriam

Androscoggin County

Alton L. Grant, Jr., M. D.,

Auburn

Cumberland County

Ervin A. Center, M. D.,

Steep Falls

Harry L. Curtis, M. D.,

Portland

Joseph B. Drummond, M. D.,

South Portland

William Holt, M. D.,

Portland

Harvey Howard, M. D.,

Freeport

Francis J. Welch, M. D.,

Portland

Knox County

Archibald F. Green, M. D.,

Camden

Lincoln-Sagadahoc County

Robert W. Belknap, M. D.,

Damariscotta

John P. Goodrich, M. D.,

Boothbay Harbor

Penobscot County

Albert W. Fellows, M. D.,

Bangor

Waldo County

Eugene L. Stevens, M. D.,

Belfast

Washington County

Walter J. Gilbert, M. D.,

Calais

York County

Fitz E. Small, M. D.,

Biddeford

Chrysaphes J. Xaphes, M. D.,

Biddeford

Sweetser-Children's Home



The Children's Home of Portland, oldest childcaring institution in Maine, incorporated 1828, the Sweetser Home in Saco, incorporated 1913, and the Children's Aid Society of Maine, incorporated in 1905, are uniting their efforts to serve boys and girls. These three homes were established to help children. No change in purpose is contemplated, but to meet changing needs there must be a change in methods. The importance of preventive work is recognized in social as well as medical science. Normal, healthy children, when faced with problems too complicated for their age and experience, need the help of trained personnel in working out a successful social adjustment. The study-treatment program of the Sweetser-Children's Home provides such help.

Funds and policies are administered by the Boards of Managers of Children's Home of Portland, Sweetser and Children's Aid Society through a Joint Operating Committee, which has been incorporated under the name of Sweetser-Children's Home. Community Chest support is received by the Children's Home of Portland for the children coming from the Portland Community Chest area.

Location and Plant

The Home, situated on a hilltop one mile from the center of Saco, affords the children the advantages of both town and country. The children attend the local schools and churches, and participate in their social and extracurricular activities, Scouts, etc. They also have the freedom of the Home's 200 acres of fields and woods. The property affords excellent opportunities for the development of athletic fields, a pond for swimming and skating, and other permanent improvements at small expense.

The present plant at Saco includes an Administration Building, with dormitories accommodating 16 children. Cottages embodying the most progressive ideas in institutional building, are the first of their kind in New England. Housing 12 children and 3 staff, it brings the group down to as nearly family-size as is financially practicable. The high proportion of single rooms (4 out of 8) is especially commended by the Child Welfare League of America. Its single-story plan allows for maximum efficiency of staff and better supervision of the children.

Services and Admissions

Services offered by Sweetser-Children's Home are: Study and treatment for boys and girls showing emotional disturbances and adjustment difficulties in their own home, boarding home, school or community. An observation period, preliminary to permanent placement, for children under an agency's care. Only children of normal or superior intelligence are accepted. There are no facilities for the care of feeble-minded children. Children of school age, residents of Maine (6 through 18), are eligible for admission.

All applications should be made to the Director who, with the professional staff, considers each case in relation to the facilities and program of the Home. A social history, medical history, operative permit and financial agreement are required of all cases accepted.

During the past years Sweetser-Children's Home has received applications from public and private agencies, doctors, hospitals, the courts, probation service, the clergy, and individual parents. Admissions are determined by the child's need and by availability of space.

Sweetser-Children's Home is the first and only private agency in Maine to provide individualized study and treatment for children while living in a group. Its services are open to children anywhere in Maine. Visitors are always welcome.

Although the capacity of the Home is limited to 42 children at any one time, only a few should require long-term care, so that during a year a far larger number will have received service.

Staff

Sweetser-Children's Home is the only study-treatment home in Maine with a professional staff equipped to give complete psychological, psychiatric, medical and casework service.

The psychiatric caseworker plans for admission, treatment while in the Home, discharge and after-care of each child accepted. The caseworker confers with the Director in all matters of planning and treatment, and forms the connecting link between the various members of the staff, the referring

agency, the child's own family, school authorities and group leaders outside the Home, and the child himself.

The psychologist tests each child soon after admission. A variety of tests is given so that the child's mental abilities and disabilities are discovered, his actual achievements in all subjects are known, and his special interests and aptitudes are noted. Following such study, children can be given practical help both at home and in school.

The psychiatrist is used on a consultative basis and, when the need is indicated, works directly with a child for the purpose of diagnosis or treatment.

A consulting pediatrician gives a thorough physical examination to each child at the time of admission, and necessary medical attention thereafter. In case of acute illness or injury, complete hospital facilities are available to the Home. Eye and ear examinations and treatment are arranged through local clinics. Routine dental care is provided.

Cottage parents have been selected for their character, interest and ability for working with boys and girls in groups. Their trained observation of the child's reaction to the daily routine of living is important in planning for the individual child.

Staff meetings at regular intervals integrate the work of the professional and household staff.

Program of Work and Play

A healthy balance between work and play is maintained. Each child becomes part of the family group according to his capabilities. Household and farm tasks, shared with others, help to develop a sense of responsibility. The recreational program is homelike; it includes outdoor play and sports, motion pictures, entertainments and holiday parties.

There will also be the valuable contacts gained from attendance at public schools and church, and from membership in Scouts, clubs and other community organizations. These relationships will be closely supervised by staff members so that each child will derive the full benefits and will learn to assume his social responsibilities. A remedial tutor is available for those children not able to make use of the public school.

Group living is in itself an important aid toward individual adjustment. The child whose life has been disordered, irregular and confusing, usually benefits from the routine necessary in a group. He develops a spirit of give and take. He discovers that other children have been hurt as he has been, by neglect, by the break-up of their home, by the loss of their security.

Sanatorium Builds Modern Hospital



Construction of a modern three-story hospital—affording the last word in facilities for tuberculosis treatment—is virtually completed at Central Maine Sanatorium in Fairfield, and the new building is expected to be placed in service in June.

Representing an investment of more than \$500,000, the hospital will provide 64 beds and four recovery beds. Besides increasing the sanatorium's patient capacity tremendously, the new building will have two completely equipped operating rooms, a laboratory and pharmacy, administrative offices and the most modern X-ray department in the state.

The Maine Legislature allocated \$518,000 to build and equip the hospital. Construction was started in August, 1953, by the Brown Construction Company of Portland. Cost of the building itself is pegged at \$404,000 with the remainder going for equipment, furnishings and landscaping.

Dr. William B. Grow, sanatorium superintendent, feels that "We've certainly got our money's worth" for every building

dollar, and a look at the new plant will bear out his opinion. Located near the entrance to the sanatorium grounds, the hospital is of cinder block construction with brick facing and is entirely fireproof. Besides the main structure, there is a two-story wing housing operating rooms and service facilities. This is connected by a covered ramp to the nearby Jewell Building.

Inside the new building, the austerity usually associated with a hospital is completely lacking. It's more like a modern home or a hotel than an institution. Walls of the rooms are finished in pastel, usually with one darker wall in each room, and shades at the window are color-keyed to harmonize with the walls. Fluorescent lighting units are set in glass fixtures in the acoustic ceilings. The telephone switchboard and information desk are located at the right of the main entrance. Adjacent to these is the general medical office, which in turn connects to the office of the superintendent. To the left of the

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Committees—Continued from page 174

posed or considered by the various medical groups or individuals concerning the practice of the healing arts should be submitted for study and action by the legislative committee. This would enable the committee to be well informed and enable the committee to work for as well as against any proposed legislation, and this in turn would enhance the standing of the committee in the eyes of the legislators.

2. The county associations should be definitely encouraged to foster active legislative committees. In turn, the recommendations of these committees should be transmitted to the Legislative Committee of the Maine Medical Association.

3. Establish and maintain close relationship with the President and Council of the Maine Medical Association. The committee to report from time to time throughout the year for consultation, assistance and guidance in order to carry out the wishes of the association. Let's make the legislative committee a standard bearer for the Maine Medical Association in all matters pertaining to legislation in our state in the future.

4. It is the earnest hope of this committee that in the future every member of the Maine Medical Association will interest themselves in legislative matters concerning our profession and will be willing to actively participate when the need arises.

Respectfully submitted,
WILSON H. McWETHY, M. D.,
FRANCIS A. WINCHENBACH, M. D.,
LAWRENCE CRANE, M. D.,
WILBUR B. MANTER, M. D.,
M. TIECHE SHELTON, M. D.,
Chairman.

Committee on Medical Education and Hospitals

The Committee on Medical Education and Hospitals of the Maine Medical Association herewith submits its annual report.

The duties of this committee fall into three general categories:

1. hospital-physician relationships;
2. opportunities for medical education of Maine students, and
3. postgraduate medical education for doctors of Maine.

The committee was not requested to focus its attention on any problem of hospital-physician relationships during the year.

In regard to opportunities for medical education of Maine students, the chairman of this committee held several conferences with Mr. Payson, the executive secretary of the Association, reviewing existing and pending legislation pertinent to the problem. Mr. Payson gave the opinion that the present legislature would be asked to provide funds to implement the law (Chapter 122, P. & S.) reproduced in last year's report of this committee, "An Act permitting the University of Maine to provide additional educational opportunities." This request for funds (L.D. 453) was defeated recently by both the Senate and the House of Representatives.

Mr. Payson also reviewed the "compact plan," under which proposal the New England states would be able to reciprocate in providing various types of education in such special fields as each state was particularly well able to provide. For example, this plan would allow a Maine student to obtain a medical education at the University of Vermont, while a Vermont student might be allowed to study engineering or forestry at the University of Maine; neither stu-

Continued on page 181

METICORTEN

PREDNISONE



in rheumatoid arthritis

more potent
than other corticosteroids

lessened incidence
of sodium retention
and potassium depletion

*T.M.

METICORTEN,* brand of prednisone.

Back to first principles for REAL BREAD

The makers of Pepperidge Farm Bread believe in fresh natural ingredients for nutritionally valuable and taste-pleasing bread.

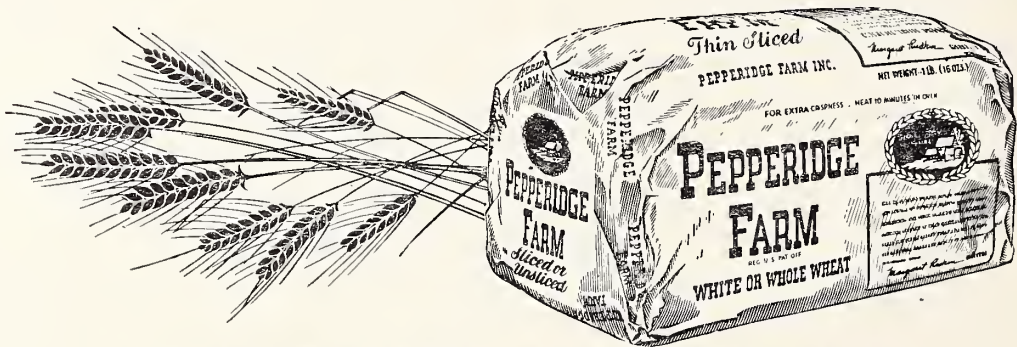
So the flour for our Whole Wheat Bread is stone-ground in our own grist mills—contains the wheat germ and all the natural goodness of the whole grain. And we use whole milk, sweet cream butter, yeast and unsulphured molasses to make our bread.

We offer White Bread, too—made with *unbleached* flour, dairy-fresh ingredients.

We suggest that Pepperidge Farm Bread deserves a place on your table.

For information about our special SALT-FREE Bread, please write to me.

Margaret Rudkin
DIRECTOR



PEPPERIDGE FARM BREAD

NORWALK, CONNECTICUT

Ultrasonic Therapy

is progressing so rapidly that it is now generally regarded as the outstanding development of the decade in physical medicine.

In clinic, office and hospital the new Birtcher

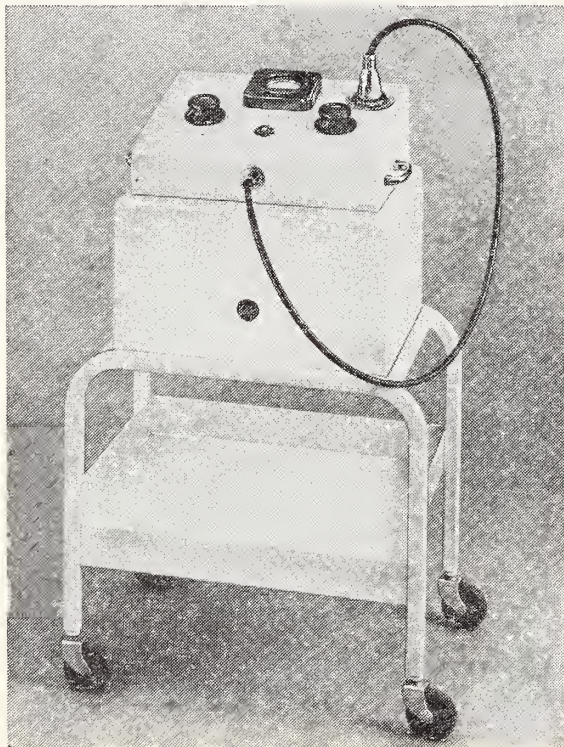
MEGASON Ultrasonic Unit

is earning the respect of both operator and patient because of its consistently excellent performance. *Rugged construction . . . to deliver years of continual use . . . high sensitivity . . .* ensuring exact dosages.

THE GEO. C. FRYE CO.

116 Free St.

Portland, Maine



Committees—Continued from page 179

dent would be prevented from obtaining desired training by prohibitive tuition costs outside his home state, under the plan. Mr. Payson gave assurance that this plan would be called to the attention of the Legislative Committee, and receive its support in the present legislature. In his opinion no action was required by the Committee on Medical Education and Hospitals. At the time of writing of this report the "compact plan" (L.D. 456) was on the Governor's desk for his signature.

In the field of postgraduate educational opportunities for Maine doctors, the detailed report of last year's committee was reviewed by each of the members of the present committee, and there were no suggestions forthcoming to change or add to the recommendations expressed in last year's report. In past years postgraduate education, like the weather, has been "something everyone talks about, but nobody does anything about." The rapid and healthy growth of the Maine Academy of General Practice promises to change this situation, by its insistence that members of the Academy devote a definite number of hours annually to postgraduate education.

This committee therefore recommends that in the future the chairman of the Postgraduate Education Committee of the Maine Academy of General Practice be proposed by the Nominating Committee of the Maine Medical Association as a member of the Committee on Medical Education and Hospitals.

Respectfully submitted,
MILAN A. CHAPIN, M. D.,
RICHARD C. WADSWORTH, M. D.,
GEORGE J. ROBERTSON, M. D.,
C. HAROLD JAMESON, M. D.,
JOHN R. LINCOLN, M. D.,
Chairman.

Investment Committee

Anticipating the annual report of your Investment Committee, your Chairman wrote to Mr. Carrell K. Pierce, a member of H. M. Payson & Co., investment bankers, asking him to make a survey of the securities now held by the Maine Medical Association. Mr. Pierce was the broker consulted in 1952 when changes were made in our investments. Following is a copy of the letter received on April 13 from Mr. Pierce and it is the opinion of the committee that this letter is sufficient to explain the status of our investments at the present time.

"At your recent request, we are pleased to give you a short review of the securities held by the Maine Medical Association and JOURNAL for the purpose of making your report at the annual meeting of that Association.

"Early in 1952 the Association bought 25 shares of Chase National Bank capital stock at 41½%. As you may know, recently the Chase National Bank merged with the Bank of Manhattan Company forming the new bank of Chase-Manhattan Bank. For the 25 shares of Chase, you now should hold 31¼ shares of the new bank stock which is quoted at \$51 a share at the present market. The ten shares of Consolidated Edison \$5 Preferred, which was purchased at 109, is currently selling at the same price. The 20 shares of First National Bank of Boston, purchased at 51¼, is currently selling at 64¼. In addition you should have two additional shares issued as a stock dividend in 1953. Your Province of Nova Scotia 3¾% Bond, which was purchased at 99½, is currently bid at 101¼. The 12 shares of Central Maine Power Company 3½% Preferred, purchased at 79, is currently quoted at 78 a share. The \$1000 Bangor and Aroostook Railroad 4½% Bond due July, 1976, purchased at 86,

Continued on page 183

METICORTEN

PREDNISONE

Schering



in rheumatoid arthritis

more potent
than other corticosteroids

lessened incidence
of sodium retention
and potassium depletion

HOWARD A. PEARCE
General Agent, Maine State Office,

MUTUAL BENEFIT HEALTH & ACCIDENT ASSOCIATION

IS PLEASED TO ANNOUNCE THE SELECTION OF

DR. JONAS E. SALK

AS THE RECIPIENT OF THE

1955

MUTUAL OF OMAHA CRISS AWARD

PRESENTED AT

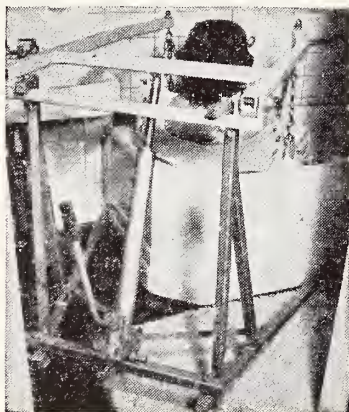
THE AMERICAN MEDICAL ASSOCIATION MEETING

Atlantic City, N. J.

June 7, 1955

A Product of Integrity **LIFTEEZ** *Equals Price and Quality*
THE HYDRAULIC INVALID LIFT

EVERY FLOOR OF EVERY **HOSPITAL—NURSING HOME** SHOULD HAVE ONE.
NO ONE DOES ANY LIFTING AT **HOME** WHERE THERE IS A BEDRIDDEN INVALID

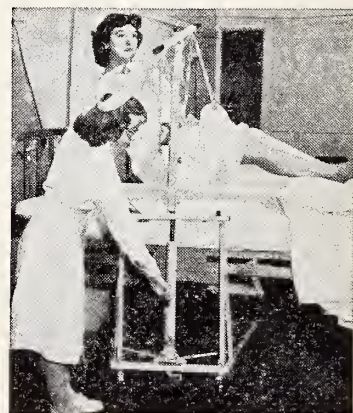


AFTER BEING LOWERED
INTO SOME BATHTUBS

Think of This! ←

- Only standard Lift that lifts 400 pounds.
- Only one that has simple crank that widens legs from 23" narrow to 40" — with patient suspended.
- Only one that has one piece seat and back, secured both sides, in front and back; and comfortable. Completely safe.
- Only headrest for invalids with weak necks — especially polio.

LIFTEEZ PAMPHLETS
ON REQUEST
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INVALID BEING RAISED FROM
PRONE POSITION TO 12"
HIGHER THAN HOSPITAL BED.

MAINE SURGICAL SUPPLY COMPANY
233 VAUGHAN ST. 2-4601-2 PORTLAND, MAINE

Committees—Continued from page 181

is currently selling at 99½. The \$1000 Jacksonville Gas Corporation 4% Bond due 1969, purchased at 102½, is currently bid at 102. The \$1000 Portland Terminal Company 4's of July 1, 1961, purchased at 99.68, is bid at 101. The 15 shares of Guaranty Trust Company capital stock, purchased at 66, is currently selling at 86 a share.

"As was the intention of your Committee, this represents a conservative list of securities, which have shown a moderate amount of appreciation over the last two and one-half years and should continue to maintain its present income and as the general economy of the country grows, should grow in value.

"We see no reason for changing any of these securities unless your committee is desirous of changing its policy in the type of investments that has been made in this account.

"We would be only too pleased to give you current information on any or all of these securities upon your request.

Sincerely yours,
Carrell K. Pierce."
Respectfully submitted,
E. R. BLAISDELL, M. D.,
Chairman.

American Medical Education Foundation

Maine physicians contributed \$990.00 to A.M.E.F. during 1954. However the record shows that 180 Maine physicians contributed \$5,581.06 to medical schools during the same period. A figure for support of medical education amounting to \$6,571.06 for the year 1954 comprises a total figure which is an encouraging evidence of our interest.

The foregoing report from the medical schools will allay certain misunderstanding many doctors entertain that earmarked gifts to Specified Schools are not credited to A.M.E.F. and vice versa.

I congratulate our participating members and express the not unreasonable hope that all of us may push the figure up to \$10,000.00 for 1955.

C. HAROLD JAMESON, M. D.,
Maine Chairman for the A.M.E.F.

Reconstructive Arterial Surgery—Progress Note
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2. Julian, O. C., Dye, W. S., Grove, W. J., and Olwin, J. S.: Direct Surgery in Segmental Arteriosclerosis. *J. Bone and Joint Surg.*, 35A :905, 1953.
3. Shaw, R. S., and Wheelock, F.: Blood Vessel Grafts in the Treatment of Chronic Occlusive Disease in the Femoral Artery. *Surgery*, 37 :94, 1955.
4. Warren, R.: Experiences with Reconstructive Surgery of Femoral Artery in Arteriosclerosis Obliterans. *A. M. A. Arch. Surg.*, 69 :582, 1954.
5. Cooke, F. N., Hughes, C. W., Jahnke, E. J., Seeley, S. F.: Homologous Arterial Grafts and Autogenous Vein Grafts Used to Bridge Large Arterial Defects in Man. *Surgery*, 33 :183, 1953.

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TUBERCULOSIS ABSTRACTS*

Issued by the National Tuberculosis Association

Renal Tuberculosis

By John K. Lattimer, M. D., *Transactions, National Tuberculosis Association, May, 1954.*

Destructive tuberculosis of the kidneys occurs in about four per cent of patients with pulmonary tuberculosis. As yet, there has been no decline in the incidence of this blood-borne complication as a result of the advent of streptomycin and other drugs.

Undetected renal tuberculosis can be very serious as it tends to be bilateral. The early diagnosis of renal involvement is difficult since it is usually asymptomatic for months or years after its onset. Urinary burning and frequency usually appear later when successful treatment is difficult. All patients with pulmonary tuberculosis should have periodic urine examinations for pyuria for five to ten years after their pulmonary infection. In early involvement of the kidneys, the number of pus cells may be as small as one to three per high power field in specimens of specific gravity 1.015.

The rate of progression of a destructive kidney lesion is highly unpredictable. Some lesions can destroy the kidneys completely within four years, while others may take ten or more years to accomplish this. Rarely the lesions may heal spontaneously. Every renal lesion must be regarded as a dangerous complication. Since both kidneys are usually infected by tubercle bacilli in any hemic dissemination, both may become the site of caseo-cavernous tuberculosis. Usually, however, one kidney breaks down first. In approximately 50 per cent of patients, the other kidney will break down if untreated.

Renal tuberculosis is always secondary to some other focus in the body. In the United States this focus is usually in the lungs. When a hemic dissemination occurs the glomeruli are infected first, then the region of the narrow loop of Henle. This medullary lesion grows larger to become necrotic and slough out, leaving a small papillary abscess cavity which can empty on the tip of the papilla or in the fornix on either side of the papilla. This is the first lesion of renal tuberculosis which is detectable by X-ray. As the cavity grows it may destroy the entire contents of the renal pyramid served by that papilla. The cavity may then extend out to the very capsule of the kidney, which tends to sink in upon the scarred and destroyed calyx. If the abscess does not slough out, it may be seen as a bulging yellow mass of caseous material under the capsule. As the tubercle bacilli and infected caseous material drain into the lumen of the kidney pelvis, other calyces are infected directly. The simultaneous infection of several pyramids often occurs.

Stricture formation as a result of infected material escaping into the kidney, pelvis, ureter, and bladder may choke off the neck of a single calyx, the neck of a major calyx serving half the kidney, or may cause a stricture of the ureter which will kill the entire kidney with great rapidity. Disastrous bladder contractures may eventually follow. The time interval between the primary pulmonary infection and the detection of kidney tuberculosis in one large series averaged eight years. The reason for this long delay is the fact that, even though destruction may be occurring and bacilli going down the ureter, no urinary symptoms are caused for months or years.

Bladder symptoms will eventually occur, however, after a long enough period of time. Hematuria will also eventually occur in most patients if the infection is permitted to persist. Occasionally, hematuria is the presenting symptom. Dull pain over the kidney is frequent, but fever or elevation of the erythrocyte sedimentation rate is rare with renal tuberculosis. Pyuria, together with no pyogenic bacteria on routine culture, should lead to a suspicion of tuberculosis.

The advent of chemotherapy has been a great blessing for patients with kidney tuberculosis. In 1946, even streptomycin alone, produced a dramatic improvement of symptoms in patients whose bladders were not already contracted. The decline in the number of deaths from uremia has been impressive. Combined therapy with PAS and streptomycin, given concurrently for a period of one year, has given considerably better preliminary results than did streptomycin alone. It did not appear to matter whether the streptomycin was given daily or twice weekly.

Isoniazid alone, like streptomycin, does not convert large caseous renal lesions readily and often drug resistance appears after several weeks of treatment. Isoniazid has a distinct danger for patients who are uremic. It is a central nervous system stimulant; and among other disadvantages can cause convulsions if the blood level rises too high. Blood levels should be done on all patients who show any elevation of urea nitrogen or whose kidney function is diminished.

Prostatic lesions which have resulted from, and coexist with, renal lesions, or which remain after a tuberculous kidney has been removed, are currently treated with a combined regimen of streptomycin, PAS, and isoniazid for a period of at least one year. Radical prostatovesiculectomy is advised only in the rare cases with intractable pain. A tuberculous epididymis is removed only after three weeks of chemotherapy if the patient is sterile.

Unilateral, destructive tuberculosis of the kidney is probably best treated by nephrectomy followed by one year of combined treatment with streptomycin and PAS. To date, the presence of any lesion large enough to be visible by X-ray has heralded a poor prognosis for permanent conversion by chemotherapy alone. The newer chemotherapeutic regimens may justify a trial of at least one year of chemotherapy before surgery is advised. The operation should be postponed long enough to make certain that the urine from the contralateral kidney is free of tubercle bacilli and pus cells. In selected cases partial resection of the involved kidney area may be advisable, after four to six months of combined therapy with streptomycin and PAS. The period of treatment should be at least one year.

Bilateral, inoperable renal tuberculosis is now treated with combined chemotherapy for at least one year. If pyuria still persists a second year of treatment may be given. Patients are kept in a semi-ambulatory rest regimen for the first six to twelve months. At the present time regimens employing isoniazid, streptomycin, and PAS together for a period of one year are being tested. Some patients will also be tested on a combination of isoniazid and another tuberculostatic drug for a second year. If one kidney is only slightly worse than the other, the worse kidney should not be removed. The patient will only die sooner.

Prostatic and epididymal tuberculosis are now being treated with one year of combined chemotherapy. Epididymectomy is advised for lesions which are obviously very large, caseous, or necrotic. The operation is followed with one year of combined chemotherapy.

Eight years of observation of bacteriological data, roentgenographic data and symptomatic and survival data have convinced us that modern chemotherapy is certainly effective in modifying the formerly lethal course of renal tuberculosis. A careful search for small numbers of pus cells in the urines of all patients with a history of pulmonary tuberculosis is the most valuable test which can be done, for it may lead to the early detection and successful treatment of this disease.

(The printing of Tuberculosis Abstracts is made possible by the coöperation of your local tuberculosis and health association.)

* From Vol. XXVIII, June, 1955, No. 6.

NEWS AND NOTES

Officers Elected at Annual Meeting
Maine Trudeau Society

Albert Aranson, M. D., of Portland, was elected President of the Maine Trudeau Society at the annual meeting held May 5, 1955, at the Bangor House, Bangor, Maine. George W. Wood, III, M. D., of Bangor, was elected Vice President, and Brinton T. Darlington, M. D., of Waterville, Secretary.

Cumberland County Tuberculosis and Health
Association Annual Meeting

At the annual meeting of the Cumberland County Tuberculosis and Health Association held at the Chamber of Commerce Building in Portland, Maine, on May 12, 1955, Langdon T. Thaxter, M. D., of Cumberland Foreside, an active member for many years, was elected President for 1955-1956. Other officers elected at this meeting are as follows:
1st Vice President, Mrs. Maurice Davis.
2nd Vice President, Edward A. Greco, M. D.
3rd Vice President, Mrs. Athern P. Daggett.
Treasurer, Mr. B. Frederick Ayer.
Recording Secretary, Mrs. P. A. Bachelder.

Mental Health Clinic Schedule

The Division of Mental Health offers psychiatric clinic service to children and adults in the following cities:
Portland — Health and Welfare Department, 178 Middle Street. Every Tuesday.

Leviston — Out-Patient Department, Central Maine General Hospital. Every Monday.

Augusta — Bureau of Health, Division of Mental Health. By Appointment.

Waterville — Mansfield Clinic, Thayer Hospital, 3rd Wednesday.

Bangor — Out-Patient Department, Eastern Maine General Hospital. 1st Wednesday afternoon.

Valentine School, Union Street. 1st Thursday.

A traveling clinic visits the following towns and cities at irregular intervals: Caribou, Houlton, Lincoln, Machias, Rockland and Rumford. The Portland Clinic is open daily with a staff of 1 psychiatric social worker and 1 psychologist. The psychiatrist is in attendance on Tuesdays. The other clinics are staffed by a psychiatrist and a psychologist.

Referrals may be made by private physicians, parents, families, school agencies, school superintendents, Department of Education, all divisions within the Department of Health and Welfare. Application blanks may be obtained from the main office of the Division of Mental Health — State House, Augusta.

Patients are seen by appointment only. Each child must be accompanied by a parent or guardian. Applications should be sent to the Director, Division of Mental Health, Department of Health and Welfare, State House, Augusta.

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Sanatorium Builds Modern Hospital

Continued from page 176

entrance is a waiting room, and next to this is the out-patient department which has four small examining rooms with folding plastic doors.

Beyond these is the X-ray room—the "heart" of a tuberculosis sanatorium. Dominating the room is a new General Electric 300-milliamper X-ray unit, the only one of its kind in Maine and the fifth installation of this machine in New England. The room was designed with this unit in mind, and supports were built into the I-beams of the building to accommodate the heavy equipment. Its motor-driven table, riding on bevel gears, will tilt the patient to any desired angle.

This unit, sanatorium officials say, is considered tops in radiography at the present time. It includes fluoroscope equipment and a spot film device to take X-rays instantly should they be wanted during a fluoroscope examination. The X-ray equipment itself cost more than \$20,000, but this was covered by a separate allocation and wasn't included in the \$518,000 figure. The X-ray room was especially constructed to guard against stray radiation. Its walls are actually a "lead sandwich"—a sheet of lead between two layers of cinder blocks. There are lead panels in the doors of the room, too, boosting the weight of a single door to about 600 pounds, and the technician operating the control stand is protected by a heavy lead shield. A "pass box" to speed film handling connects the X-ray room with the darkroom.

Space is provided on the first floor for a records room, Nursing Service office, a pharmacy, Medical Social Service office, another physician's office, examining and treatment room and a special room for X-ray film storage. The entire south end of the first floor is devoted to a conference room measuring 20 x 50 feet.

Second and third floors of the main building contain the semi-private patients' rooms, each with its own flush and lavatory. The rooms have individually-controlled reading lights. Doors are set on heavy rubber rollers which not only take part of the burden from the hinges but provide a positive "stop" at any door angle. Nurses' stations are located midway of the building on both the second and third floors. Beside them are windowed recovery rooms, enabling the nurse to keep a post-operative check on a patient without entering his room. Night lights are recessed in the corridor walls. Diet kitchens on the second and third floors, equipped with 20-cubic-foot commercial-type refrigerators, dispense meals prepared at the main kitchen "on the Hill."

The wing adjoining the main hospital in the form of a "T" houses two operating rooms—connected by a small sterilizing room—which will be equipped with explosion-proof switches and fuses. Flooring of these rooms is completely grounded, and the hospital's air-conditioning system affords absolute control of temperature and humidity and provides electronic filtration. Located near the operating rooms on the second floor of the wing are the main sterilizing room, doctors' "scrub-up" area, and the doctors' and nurses' locker rooms.

Ground floor of the wing contains service facilities, including a dishwashing room, with tile walls and ceramic tile flooring, which is complete with automatic dishwashing equipment. The laundry room is nearby, and the laboratory will be moved into quarters on the ground floor. There's a clean-up room, with a gas-fired incinerator, and even an automatic dust-mop shaker—you simply thrust the mop into an opening, a machine shakes it vigorously and the dust passes harmlessly up the chimney.

Elevators are located in the wing. Space for several storage rooms is provided in the new building, and there's a small room to house telephone equipment.

A small basement installation contains the air-conditioning equipment and heating controls. The sanatorium's main boiler room is adequate to provide heating for the new hospital and an emergency power unit has been installed.



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CLINICAL INDICATIONS FOR A LOW SODIUM DIET**

J. B. DANA, M. D.*

INTRODUCTION

There is a growing body of evidence that indicates that salt may not be the innocuous element we suppose it to be. Selye has shown that the administration of large amounts of sodium chloride to chicks caused renal lesions similar to those found in some forms of human hypertensive vascular disease. Renal lesions and hypertension have been produced in rats merely by offering them only salted water for drinking. Also, a mechanism by which salt might cause narrowing of the smaller blood vessels in the body has been postulated by some investigators.

When one turns to the medical literature for information as to what is a toxic level of sodium in the diet little specific information is available although there is a vast literature on sodium in abnormal states and in experimental work involving sodium and other variables.

It has been stated that all of the factors which favor the retention of sodium in the organism, whether due to increased ingestion or decreased excretion, facilitate the development of hypertension.

Since the beginning of the last century when the element sodium was discovered, it has been recognized as an important constituent of the body and an essential element in the human diet. Scientific attention was first directed to salt in disease states in about

1850, and during the subsequent 100 years we have discovered and then rediscovered the merit of salt withdrawal in edema, in heart failure and in hypertension.

Over recent years we have been educated to deal with some of the difficulties encountered during salt restriction and have developed an awareness of its hazards when kidneys are not functioning normally. Despite this, we have paid amazingly little attention to dietary salt in the apparently normal person, and particularly the young, for accumulated evidence indicates to some extent a greater sensitivity to sodium in youth.

The human appetite for salt has become dissociated, so to speak, from the need for salt, and the amount employed by a given individual is governed largely by culture, by custom and by food habits ingrained through early life.

It is evident to all of us that an appetite or desire for salt does exist and, once accustomed to it, the human craving for it is intense. There is historical evidence of the strong views men took about salt, even to the extent of waging war as did the Teutonic peoples.

Though it is certain that salt is a dietary essential, there is a definite need to re-examine the human requirements for it, its evident relationship with potassium intake, its native toxicity and finally to try to unravel the above mentioned dissociation between taste and physiologic needs.

Meneely, in writing about the above aspects of salt,

* Cardiologist, VA Center, Togus, Maine.

** Presented at the Meeting of the Maine Dietetics Association in May, 1954.

From the Veterans Administration Center, Togus, Maine.

cites a passage from Robinson Crusoe in which Robinson Crusoe makes an effort to induce his man Friday to eat salt. Friday "spat and sputtered at it, washing his mouth with fresh water after it." It is offered that if Friday had access to recent medical writings he would have been even more vigorous and steadfast in his resistance to the white man's blandishments.

After this brief introduction, I will go on to some of the clinical indications for dietary sodium restriction, discussing at some length the application of this principle in the treatment of heart disease, renal disease, hypertension and cirrhosis of the liver, and touching only lightly on other less frequent and less common indications such as pregnancy and its complications and as an adjunct to treatment with some of the newer hormonal preparations.

HEART DISEASE AND CONGESTIVE HEART FAILURE

Man can cope with his perversion for salt until he shows a tendency to accumulate it in any one of several conditions but particularly in heart failure. Although helpful in the alleviation of a variety of human ills, salt restriction in the daily menu is applied most widely to people with heart disease and congestive heart failure.

In chronic congestive heart failure, renal hemodynamics are so altered that there is a decreased capacity for sodium, for chloride and possibly for water excretion. The universally recognized fluid retaining effect of excess amounts of sodium as well as the spectacular success of sodium restriction in the treatment of edema has focused clinical and investigative attention on this substance.

EDEMA

The term edema, as ordinarily employed, refers merely to an increase in the volume of extracellular fluid. Although it is obvious that the administration of any fluid in excess of body water needs and water excretory capacities, irrespective of its composition, will result in edema, most clinical instances of edema are etiologically related to retention of sodium. If the increment is of sufficient magnitude, it may be clinically demonstrated by the phenomenon known as pitting. As suggested above, in congestive heart failure there is a marked diminution in renal blood flow and other renal functions with lowered sodium excretion, and all of these elements enter into the genesis of cardiac edema.

It is of interest that Warren and Stead have been able to precipitate edema in patients who have recovered from congestive heart failure by adding excessive amounts of salt to their diets.

In contrast to the complexity of factors operative in the genesis of edema the principles underlying treatment are quite uniform. Almost all instances of edema respond to sodium restriction. This may be facilitated also by procedures which abstract sodium

from extracellular body fluid such as mercurial diuresis and the use of an ion exchange resin.

Thus, diet becomes of paramount importance in the treatment of cardiac decompensation or congestive heart failure. As far back as 1866 Karell introduced the diet bearing his name and this diet consists solely of 800 cc. of milk daily. Such a program has, in the past, frequently been found to result in the improvement of cardiac efficiency and a good diuresis. There is reason to believe that the value of the Karell diet lies partly in its restriction of caloric intake but primarily in its severe restriction of sodium chloride.

Recently, renewed interest in the use of diets low in salt for the treatment of cardiac failure has been brought about by the careful clinical work and observations of many competent investigators in the field of cardiovascular and renal disease.

SALT RESTRICTION

The ordinary low salt diet consisting of a variety of unseasoned foods cooked whenever possible in one or more changes of water still contains up to two grams of sodium chloride. In many cardiac patients with edema this degree of sodium restriction will produce a diuresis. In some, however, such a regimen may prove inadequate and under these circumstances a dramatic response may be obtained by more stringent sodium restriction such as that possible with diets of fruit juices and rice or of low sodium milk.

In addition to exercising reasonable clinical judgment in modifying the stringency of salt limitation once edema has disappeared, precautions should be taken to avoid the dangerous effects of sodium depletion which will be discussed later.

Since many patients cannot be satisfactorily controlled with digitalis alone, a program restricting daily salt intake should be instituted early. If congestive failure is severe when the patient is first seen, dietary restriction of sodium is usually necessary to prevent the re-appearance of subsequent bouts of decompensation, and moderate sodium restriction instituted early prepares patients for more rigid restriction that is ultimately necessary in many.

The successful application of sodium restriction requires that the patient be educated in the details of the low salt diet. Not only should the sodium content of specific foods be discussed but low sodium menus must be provided. The need for detailed careful instructions is reflected in the observation that many cardiacs who do poorly at home on a program of supposed salt restriction will improve dramatically on a hospital low salt diet without any other significant change in the therapeutic regimen.

ESSENTIAL HYPERTENSION

While there is little controversy over the beneficial effects of a low sodium diet in the treatment of con-

gestive heart failure, there is much difference of opinion in connection with the use of a low sodium diet in the management of individuals with hypertension. Clinical as well as experimental evidence in a variety of disease entities suggests that body sodium and the course of certain vascular diseases may be inter-related. It has been reported that exacerbations in patients in a general hypertensive clinic appeared to be related to the ratio of serum sodium to serum chloride.

Renewed use of diets of low sodium content in the treatment of essential hypertension has led to controversy both as to the effectiveness of the diet and as to the origin of the practice. Reports published in 1922 on the usefulness, in essential hypertension, of diets poor in sodium chloride is a point of departure for this avenue of treatment. Until recently, any practical low sodium diet of average protein content contained about 0.8 grams of sodium, a level of restriction which does not often have a definite effect on arterial pressure.

The revival of sodium restriction is based on three types of study. One is the previously mentioned production of both hypertension and kidney damage in rats by treatment with excessive amounts of sodium chloride and the injection of desoxycorticosterone. A major clinical contribution has been the Kempner rice diet which seems to show some effectiveness in the treatment of hypertensive disease. Other clinical studies have shown that, as a group, patients with essential hypertension tend to retain sodium unduly and tend also to show increased arterial blood pressure when sodium is given in excess.

However, few of the above studies are fully convincing and before one accepts dietotherapy in the treatment of hypertension, the following questions must be answered and issues resolved: First, does sodium restriction, per se, lower blood pressure, and, if so, in what proportion of patients? Secondly, what is the minimum effective sodium restriction and how long must it be maintained before it can be determined whether or not a patient is to respond to such treatment? Finally, what is the practicality of low sodium dietotherapy under the conditions of ordinary medical practice as compared with conditions prevailing in a large hospital?

The data at hand indicate that significant responses in the form of lowered arterial blood pressure usually occur only when dietary sodium restriction is such that the urinary excretion of sodium is less than 0.5 grams in 24 hours, and are most evident when restriction of sodium leads to an excretion of only 0.2 grams in 24 hours. Four weeks of sodium restriction at a 0.2 gram level of urinary sodium excretion is necessary before a decision can be confidently made as to the patient's ability to respond favorably to such treatment. The reported remissions in patients with hypertensive vascular disease maintained on a rice diet, as advocated by Kempner, appear to

be related to the stringency of sodium restriction that this diet entails. As corroborative evidence of this conclusion, one finds beneficial results reported in similar patients on low sodium but higher protein milk diets. It would appear that roughly one-quarter of the patients with severe hypertension react favorably to strict sodium restriction.

DIFFICULTIES IN MAINTAINING RESTRICTION

In many clinics, the use of diets rigidly restricted in sodium has been abandoned except in the treatment of patients with associated cardiac decompensation. The reason for this is that even among inpatients it is often difficult to maintain the desired sodium restriction. Medications, drinking water and other unsuspected sources of sodium abound. These possibilities of extra-dietary sources of sodium are multiplied in out-patients in whom, in addition, the social, domestic and psychogenic difficulties of sodium restriction are greatly increased. Low sodium dietotherapy is therefore often impractical under the conditions of out-patient or office practice and demands, at the very least, a certain basic comprehension and compulsiveness on the part of the patient.

In concluding the discussion on the use of low sodium diets in the treatment of hypertension, it should be stated that in a small percentage of patients with severe hypertension who are unsuitable for surgical treatment or for the newer modes of potent medical treatment strict dietary regulation does effect some definite benefit, and even when medical or surgical therapy is feasible but not wholly successful, the addition of strict salt restriction to the regimen may improve the therapeutic results.

At the present time no final answer is available as to the relationship of sodium intake to the genesis of essential hypertension. It would appear to be extremely complex and to attempt to analyze it into its component parts would necessitate specific knowledge regarding the relationship of the kidney to hypertension, the relationship of the adrenals to salt balance and the relationship of other unknown or poorly understood influences to the adrenal glands themselves.

RENAL DISEASE

The next facet of this problem which I would like to discuss is its relation to renal disease. In nephrosclerosis associated with hypertension, salt and water metabolism is of importance only when kidney tissue is destroyed or when there is associated heart failure.

In the acute phase of glomerulonephritis, the relatively slow passage of the reduced volume of filtrate through the renal tubules permits the re-absorption of an abnormally high percentage of sodium and consequently of water, and the excretion of sodium is even more markedly reduced. In the majority of patients with acute glomerulonephritis, sometime in the course of the disease, oliguria and retention of salt and water can be demonstrated even the absence

of frank edema. This retention of sodium and water contributes to the edema which might subsequently appear and is an indication for sodium restriction at this stage of the disorder. The other factor which contributes to the development of edema in acute glomerulonephritis is an element of heart failure which by virtue of what has been said before would, *per se*, be an indication for sodium restriction.

In the nephrotic stage of glomerulonephritis the kidneys are, as in congestive heart failure, unable to excrete in a normal manner and the water binding effect of the excessive sodium stored in the tissues exerts a marked influence in decreasing the amount of water eliminated in the urine and in increasing the amount of fluid stored in the tissues. Hence, a diet low in sodium is as important in the treatment of nephrotic edema as in the treatment of the edema of congestive heart failure. A diet containing about .5 gram of sodium daily is usually satisfactory, but if the edema persists it may be necessary to lower the sodium content of the diet to .2 gram. It has been noted that patients have subsisted edema free when they have had the nephrotic stage of glomerulonephritis for more than a year, even in the presence of extremely low serum albumin, when a diet composed of two liters of low sodium milk prepared with distilled water and suitably fortified and amounting to 1600 calories is supplied.

In acute renal dysfunction associated with oliguria or anuria, a condition known clinically as lower nephron-nephrosis and occurring on occasion after severe prolonged shock, after mismatched blood transfusions, on occasion after the use of sulfonamide preparations, or after poisoning with one of several noxious agents, the restriction of salt and water intake is imperative to prevent the development of what might well be fatal pulmonary edema. This disturbance of renal function is usually an acute problem and does not present a long range problem in dietary management.

HEPATIC CIRRHOSIS WITH ASCITES

Although primarily a disease of the liver, cirrhosis often results in decreased renal excretion of water and salt. Whereas the water retention of cardiac failure takes the form of generalized edema, that of cirrhosis most commonly occurs as ascites. There may be associated peripheral edema also and the ascites and edema can be ascribed to decreased sodium excretion which is influenced both by a rise in intra-abdominal pressure and by increased levels of anti-diuretic substances circulating in the blood. There is also some evidence to suggest an increase in a sodium retaining factor elaborated by the adrenal glands.

In the first decade of this century articles appeared in the French medical literature advocating restriction of sodium chloride in the diet as a means of retarding formation of ascites in hepatic cirrhosis.

For several years the dietary restriction of salt was widely accepted. Subsequently the enthusiasm for a diet high in protein, high in carbohydrate, and with a liberal vitamin supplement was accepted as ideal treatment of chronic liver disease, and the acceptance of such a diet led to a disregard of the sodium content of the diet. Thus, until protein supplements low in sodium became available, it was difficult to limit sodium intake on this latter regimen to the point that accumulation of ascites could be prevented. Now, with the availability of low sodium protein supplements, it is possible to insure the patient a high protein intake while at the same time rigidly restricting sodium intake. It is true that response to sodium restriction is not as satisfactory as is the response of patients with congestive heart failure, but there is good evidence to show that the limitation in the amount of sodium ingested does reduce ascites and edema, or prevent its re-accumulation.

The importance of an adequate diet in this condition cannot be lost sight of. This necessitates that any dietary regimen must be sufficiently palatable to be eaten by patients with rather capricious appetites. With care in the preparation, this diet of high protein but low salt content is palatable and patients seem to tolerate it reasonably well once they have lost their taste for salt.

The use of the low sodium diet spares the patient, in many instances, the necessity for and the discomfort of frequent abdominal paracenteses with their accompanying serious loss of serum protein.

It must be remembered that in this condition, as in the other disease states previously discussed, rigid sodium restriction is not without hazard since these patients too may develop a low sodium syndrome. Thus, they must be kept under close surveillance and clinical judgment must be exercised as a means of recognizing early signs suggesting sodium depletion.

OTHER INDICATIONS FOR LOW SODIUM DIETS

I would like to mention briefly some other indications for low sodium diets without entering into any discussion of these situations.

In recent years there has been widespread use of the corticosteroid hormones, particularly Cortisone and ACTH. These substances have, presumably by some influence on renal function, the capacity for causing retention of sodium and water. For this reason, if long-range treatment is contemplated with one of these hormonal preparations, there arises the necessity for dietary restriction of sodium to prevent the development of edema and possibly cardiac failure.

It is a well documented observation that during pregnancy there is a tendency to retain salt and water, with the tendency varying from patient to patient. If pregnancy is otherwise uncomplicated and this tendency for salt and water retention is marked by the development of significant amounts of edema,

the restriction of salt in the diet of a pregnant woman is certainly indicated and may be of significant value. It is generally acknowledged that the administration of saline solution to patients with toxemia of pregnancy, eclampsia, or other acute renal difficulties associated with pregnancy may be followed by an exacerbation of the signs and symptoms of these complications. It has also been demonstrated that rigid sodium restriction under these circumstances has proved a valuable adjunct to other methods of treatment. These situations are relatively uncommon and are usually short-term problems.

COMPLICATIONS OF SODIUM RESTRICTION

Though one cannot question the well substantiated evidence of benefit derived from the use of low sodium diets in many disease states, it behooves all of those dealing with the problem to keep clearly in mind the potential hazards of such therapy. Irrespective of the type or degree of sodium restriction practiced, the possibility of sodium depletion must be kept in mind since it can culminate in shock and death. The possibility of harmful effects accruing from such dietary restriction is greater particularly if there exists a defect in the resorptive function of the renal tubules which will prevent adequate conservation of sodium. In the advanced or terminal stage of glomerulonephritis, because of severe kidney damage, there may be a dangerously large loss of sodium and potassium and under these circumstances sodium restriction might easily lead to a fatal outcome.

The symptoms resulting from sodium depletion and serving to call attention to such a complication are drowsiness, lethargy and weakness, nausea, occasional vomiting, muscle cramps and anorexia. These may all lead to further impairment of renal function and deterioration of the clinical state for which sodium restriction was first prescribed.

There is always surprise and disappointment when a procedure which has been found helpful and effective is noted to have significant limitations in that there is a point beyond which it cannot be used without causing more harm to the patient than the disease process at which such treatment is aimed. Fortunately perhaps, the not infrequent failure of the patient to adhere strictly to the difficult and often unpleasant low sodium diet does provide a protection that the enthusiasm of the therapist has inadvertently neglected.

CONCLUSION

Unfortunately, confusion and misinformation still exist in the minds of many physicians in regard to certain cardinal dietary concepts which, if correctly used, may mean the difference between success and failure of a regimen designed to control any one of a number of situations in the field of cardiovascular renal disease. Since most of the diseases included in

this field, with few exceptions, are not amenable to cure, any therapeutic measures employed must be considered as controlling rather than curative measures.

Fundamentally, the success of a well planned dietary program has as its first requisite the interested, whole-hearted coöperation of the patient. The physician, however, has almost as great a responsibility in planning the diet and encouraging the patient in his observance of it. Nor should it be forgotten that the dietitian has a role of paramount importance in such a plan. Hers is the task of building a balanced diet from the skeleton order supplied by the physician. Diets used in the treatment of cardiovascular renal disease, like many other restricted diets, may, of necessity, be limited in variety, and since the majority of them call for restriction of salt, they are inclined to be flat and unpalatable for the patient. Considerable ingenuity and imagination may be required by both the physician and the dietitian in constructing as attractive and palatable a diet as possible within the limits imposed by the patient's disease process.

Basic concepts in the realm of cardiac and renal physiology have been emphasized, revised or expanded during the past few years and from this knowledge have evolved new dietary principles. Diets based on these principles have come to form important adjuncts to the treatment of patients suffering from one of the diseases related to the heart, the blood vessels, kidneys or liver.

BIBLIOGRAPHY

1. Chart, J. J., and Shipley, E. S.: The mechanism of sodium retention in cirrhosis of the liver. *J. Clin. Investigation*, 32:560, 1953.
2. Corcoran, A. C., Taylor, R. D., and Page, I. H.: Controlled observations on the effect of low sodium dietotherapy in essential hypertension. *Circulation*, 3:1-16, 1951.
3. Danowski, T. S.: Newer concepts of the role of sodium in disease. *Am. J. Med.*, 10:468-480, 1951.
4. Dole, V. P., Dahl, L. K., Schwartz, I. L., Cotzias, G. C., Thaysen, J. H., and Harris, C.: Dietary treatment of hypertension. *J. Clin. Investigation*, 32:185-191, 1953.
5. Lowe, C. R., and Overy, D. C.: An evaluation of rigid dietary sodium restriction in the management of ascites in cirrhosis of the liver. *Ann. of Int. Med.*, 34:1396-1403, 1951.
6. Meneely, G. R.: Salt. *Am. J. Med.*, 16:1-3, 1954 (Editorial).
7. Miller, G. E.: Water and electrolyte metabolism in congestive heart failure. *Circulation*, 4:270-277, 1951.
8. Odel, H. M.: The importance of diet in cardiovascular-renal disease. *Med. Clin. N. Am.*, 35:1101-1111, 1951.
9. Watkin, D. M., Froeb, H. F., Hatch, F. T., and Gutman, A. B.: Effects of diet in essential hypertension. I. *Am. J. Med.* 9:428-440, 1950.
10. Effects of diet in essential hypertension. II. *Am. J. Med.*, 9:441-493, 1950.
11. Yorke, E. T.: Salt and the heart. Drapkin, Linden, 1953.
12. Youmans, J. B.: The horns of a dilemma. *Am. J. Med.*, 11:133-134, 1951 (Editorial).

THE ROLE OF GROUP PSYCHOTHERAPY IN A GENERAL MEDICAL AND SURGICAL HOSPITAL

ERASMUS L. HOCH, PH. D.,* and MAURICE I. DENIS, M. S. S. W.**

Historically group psychotherapy had its origins in work with medical patients.¹ Yet, paradoxically, much as psychosomatic medicine is now in vogue, the current literature on group psychotherapy tends in large measure to slight the medical and surgical in favor of the psychiatric patient.² Possibly the explanation lies in the fact that it is natural to associate psychotherapy with neuropsychiatric disorders. More significantly, however, the implication is that while we increasingly pay lip service to the concept of psychosomatic medicine, its implementation via treatment lags behind.

In this paper, then, we wish to report our experiences in group psychotherapy with patients in a General Medical and Surgical hospital. This treatment has been conducted by the authors over the period of the past year in close collaboration with the medical and psychiatric staffs. The nature of the conclusions is speculative and empirical rather than research-validated. Our purpose is twofold: (a) to stimulate the thinking of physicians about this modality of treatment; (b) to point up some of the characteristics of group psychotherapy with medical and surgical patients.

PROCEDURES OF STUDY

Briefly, our procedure is as follows. Three times weekly the authors, as co-therapists, meet in hourly psychotherapy sessions with a group of from six to eight medical and surgical patients. These patients have been referred for group psychotherapy by their case physicians and the psychiatric staff presumably because their symptomatology seems to have a large psychogenic component. The composition of the group is heterogeneous with respect to almost every factor — symptomatology, age, prognostic outlook, motivation, and the like. Therapy of necessity is short-term, most of the patients participating a maximum of three weeks, with some attending for longer or shorter periods. Individual treatment, when requested, is provided, with one of the co-therapists (the psychologist) handling individual psychotherapy while the other deals with the immediate reality situations necessitating social casework.

NON-MEDICAL THERAPISTS

At first glance, using non-medical therapists in a medical setting might seem questionable. In actual practice it has tremendous advantages. For one thing, it has been our experience that symptom-talk

is conspicuous by its absence. Almost from the very beginning patients get down to business, discussing very real problems in no uncertain terms. Possibly this is a function of the type of patients selected. Possibly it is a consequence of the therapeutic technique employed. But quite possibly this phenomenon is ascribable to the fact that the therapists are not doctors. Evidently realizing that the therapists are in no position to discuss symptoms anyway, the patients are less tempted to bog down in symptom-talk than might be the case with a medical therapist.

Whatever the reason, our group psychotherapy sessions have almost invariably centered around real problems; and no superficial ones at that. Among others, the repertoire of themes has included problems arising out of family relationships, marital crises, decisions as to whether to seek a divorce, undesirable personal traits and patterns, social maladjustment, alcoholic tendencies, and similar fundamental conflicts. Apparently the line is not drawn at any particular point, since such problems as impotence, sexual incompatibility, and illegitimacy are discussed as well.

This is not to suggest that each successive group willy-nilly bares its soul indiscriminately. At times the group is composed of patients who prefer to deal in generalities, remain with safe, superficial material, and even obviously resist becoming involved. We choose to respect such feelings. Since psychotherapy is short-term and this behavior is obviously a necessary defense, it is allowed to dissipate itself spontaneously rather than attacked. To rob the patient of such defenses before he has re-integrated himself, could lead either to an exacerbation of symptomatology or else to more serious psychological pathology.

REASONS FOR JOINING GROUP

The problem of motivation is, indeed, a considerable one. Though neuropsychiatric patients may at times be poorly motivated for psychotherapy, at least their association with things psychological is not too remote. With medical and surgical patients the link is, as a rule, more tenuous. The medical patient who seeks psychotherapy of his own accord is the exception rather than the rule. Invariably the immediate problem as far as such patients are concerned is the alleviation of symptoms rather than the search for solutions to life-conflicts.

Those patients who attend group psychotherapy, then, do so for a diversity of reasons. Among their motives are the following: (a) compliance with a referring doctor's request; (b) curiosity; (c) underlying need. Counteracting such motives are those

* Chief Clinical Psychologist, VA Center, Togus, Maine.

** Psychiatric Social Worker, VA Center, Togus, Maine.

From the Veterans Administration Center, Togus, Maine.

which tend to make the patient shy away from the activity: (a) fear of being stigmatized a psychiatric patient; (b) resentment over the implication that symptoms are "imaginary"; (c) need to keep defenses intact, almost as if a slight breach might lead to their total collapse. Once a patient has decided to attend and is admitted into the group, however, the problem generally resolves itself. Unlike some therapists,³ we have not found it necessary to "indoctrinate" prospective group therapy candidates; introducing them into an actively functioning group has proved the most effective "propaganda."

CASE STORIES

Once in the group, patients typically show a progression from the superficial presenting problem to the real problem. An asthmatic patient began by describing his feelings about his doctor ("He plays no favorites"), gradually associated this with the attitude of his parents toward himself and his brother, and eventually worked through an intense sibling rivalry relationship with the latter. An ulcer patient began, as is usual, by picturing his troubles as purely financial, but soon got around to feelings about his stepchildren, his despair at not wearing the pants in his family, his wife's extra-marital affairs, and finally his admission of impotence. A young patient with a possible neurological condition focused first on his symptom (diminished strength in his hands); gradually he proceeded to his fear of being regarded as a sissy, and eventually, in a dramatic session, confessed to the group what really bothered him—the fact that two years ago, after impregnating a girl, he had fled the scene.

In the above three instances, as in the majority of others, the patients experienced either relief of or actually remission of symptoms. Needless to say, catharsis as such is only part of the answer. In such short-term treatment the patient's basic conflicts are by no means worked through, despite the energetic efforts of the group members to serve as therapists for one another. The achieving of real insight is, then, not the primary goal, except in the case of a few patients who are excellent candidates for psychotherapy and who remain in the group long enough to work through some of their basic problems.

APPROACH TO GOALS

With most of the group members the goals are different. One feasible aim, for example, is to "break ground" for the patient's acceptance of a psychosomatic basis for his illness, a fact which may lead him to continue treatment on an outpatient basis. Another goal may be to distract the patient from his symptoms, to have him become so occupied with solving life problems that his symptom complaints fade gradually into the background. A third goal is, of course, that of helping the patient come face to face

with his *real* problem. Typical is the patient who, after complaining persistently about headaches, was able in the group to admit and face up to his problem of homosexuality. Or the mucous colitis patient who pretended first to be tortured by his children but gradually revealed how he was caught between his wife and father. (The latter was sexually molesting the former, yet despite his wife's complaints, the patient could not bring himself to protest.)

The above is by no means to imply that patients enter the group, stay for a while, and then depart minus symptoms and problems. If they do so, the credit certainly goes to a variety of factors rather than to group therapy alone. More modest gains, however, are not to be scorned. The tubercular patient who in group therapy works through his hostility to the point of coöperating more fully with ward regimen has gained appreciably. Similarly, the diabetic who in group therapy comes to understand the factors behind his need to thwart his doctor, may violate dietary regulations less often thereafter.

If for no other reason, physicians would welcome group psychotherapy on this practical basis alone. All but the most unenlightened, however, have long since welcomed the broader role which psychological treatment can play in removing or at least alleviating symptoms. The slightest solicitation of candidates for group therapy brings a flurry of referrals. Interestingly, however, periodic reminders are occasionally necessary. It is as though referrals for the usual EEG, lab work, and X-ray have long since become second-nature with the physician, whereas referrals for psychotherapy still retain somewhat of an "extracurricular" flavor.

As regards the group therapist's responsibility, it is especially crucial that in view of the short-term nature of the relationship he avoid the bull-in-a-china-shop approach. Indiscriminately opening up psychological wounds and then sending the patient out of the hospital could prove harmful, if not disastrous. It is especially important in the group to allow patients to proceed at their own pace and not to force them to go beyond the point at which they want to stop. The fact that attendance is voluntary is a partial safeguard to the patients. Beyond this, however, the therapist's approach must be a non-threatening one which allows the patient the privilege of deciding to just what degree he wishes to involve himself in the psychotherapy. To force the "spinach" of group therapy down the throat of a reluctant patient with the rationalization of its being "good for him" is hardly justifiable and even less therapeutic.

1. Pratt, J. H.: The home sanatorium treatment of consumption. *Johns Hopkins Hosp. Bull.*, 1906, 17:140-158.
2. Powdermaker, F., and Frank, J.: *Group Psychotherapy*. Cambridge, Mass., Harvard University Press, 1953.
3. Hampshire, A.: The use of groups as motivation for analytic group psychotherapy. *Internat. J. Group Psychotherapy*, 1954, 4:95-102.

PATIENT GOVERNMENT ON PSYCHIATRIC WARDS

PAUL P. PEREZ, PH. D.*

It is an unfortunate paradox that many aspects of the social structure of a mental hospital hinder, rather than further, the rehabilitative goals of the institution. An individual whose self-esteem is so easily threatened that he cannot function in the community may well interpret the paternalistic regimentation of his hospital life as verification of his own inadequacy. The patient who is unable to bear the responsibility of making his own decisions may easily become a "well-adjusted patient," obedient to all the hospital rules and regulations, only too willing to do what he is told and increasingly less able to leave the protection of the hospital. An individual who is deprived of responsibility may respond by acting irresponsibly; as a patient put it, "If they treat you like you were crazy, you might as well act crazy." The paternalistic, protective approach to the patient runs into the danger of throwing out the baby with the bath water; if we concern ourselves excessively with protecting the patient against his own destructive and anti-social tendencies, we may deprive him of the opportunity of using and developing whatever capacity for creativity and self-direction that he may have.

RECENT DEVELOPMENTS

One of the more recent developments in the evolution of the mental hospital from a custodial to a therapeutic institution has been patient government. This is a form of group activity which enables the patients to participate in matters which are of primary concern to them, and to participate in an organized, democratic manner. Through patient government, patients can not only express themselves about their daily lives; they can in many cases take active measures in improving the conditions under which they live. Patient government provides a simple and efficient means of communication between patient and the hospital authorities, thereby increasing mutual understanding and reducing unnecessary friction and tension. Perhaps most important, patient government implies a formal recognition of the patient as a worthwhile individual, able to contribute to his society and able to expect that his opinions and wishes will be considered on the basis of their merits.

HISTORY OF DEVELOPMENT AT TOGUS

Patient government was instituted in the P&N Hospital, VA Center, Togus, Maine, in 1953. Borrowing from the experience of the Boston Psychopathic Hospital, the Ward Administrator of Ward 21, an open ward for younger patients on the Acute Intensive Treatment Service, held a meeting of all

patients, elected a President, Vice-President and Secretary-Treasurer. Since then, meetings have been held every two weeks, which usually last an hour, and which any patient on the ward may attend. Attendance varies, but on this ward a majority of patients have taken an active part at meetings. After patient government had become established on this ward, it was extended to other wards in the hospital, both on the Acute Intensive Treatment Service and on the Continued Treatment Service. At the present time, patient government is active on five out of the eight wards in the hospital and it is anticipated that it will eventually extend to all wards, with the probable exception of the Infirmary Ward.

The basic unit of patient government is the ward council. Each ward elects its own officers and conducts its own meetings. These are held in the day rooms in most cases and are open to all patients on the ward. The president presides and conducts the meetings in the usual manner of parliamentary procedure. A "liaison officer" is assigned to each council, who attends the meetings and acts as intermediary between the council and the hospital authorities. At Togus, these liaison officers are Clinical Psychologists. After each meeting, the secretary gives the liaison officer a copy of all "Bills" that have been passed and the liaison officer brings them to the attention of the service concerned. In addition to the ward councils, there is a Patient Council, which consists of the officers of all the ward councils. This meets once a week and coördinates the activities of the ward councils, discusses issues of interest to all patients, and provides a convenient point of contact between the hospital administration and the patients. At the present time, the Patient Council is engaged in drawing up a standard constitution for the councils of all wards.

"BILLS" PASSED BY COUNCILS

In general, three types of "Bills" are passed by the ward councils. The first type is concerned with patient activities. Ping-pong and pool tournaments are organized and challenges sent to other wards for inter-ward competitions; committees are set up to decorate wards for holidays. When television sets were placed on the wards, the patient ward councils worked out methods for the selection of programs and the operation of the sets. Farewell parties are organized for nurses who are leaving the hospital and the details of patient participation in the maintenance of the ward are ironed out. The second type of bill is concerned with recommendations for changes in the ward rules and in hospital procedures. For the most part, these are relatively minor and can be

* Clinical Psychologist, VA Center, Togus, Maine.

From the Veterans Administration Center, Togus, Maine.

handled on the ward level. Occasionally, however, the recommended changes involve more than just the ward and, in these cases, they are taken up with the authorities concerned. The third type of bill concerns requests for services or equipment which are not presently available and these requests are passed along to the appropriate service.

On the average, about three-quarters of the requests made by patient government have been such that they could be approved and acted on. Almost all requests which had to be denied were impracticable because of budgetary limitations or shortage of personnel. In these cases, the reasons for the denial was discussed with the patients and they accepted the refusal as reasonable rather than arbitrary. For example, when the Special Services Section was unable to comply with requests for increased dances and other entertainment, the Chief of Special Services met with the Patient Council and explained in considerable detail why their requests could not be complied with. Many patients had been laboring under the popular misconception that the VA has unlimited funds. This conference not only accorded them a reasonable answer to a reasonable request, it also gave them a better understanding of the problems of the hospital administration and a more realistic basis for subsequent requests. While occasional unreasonable motions are brought up in ward meetings, these are almost invariably treated as unreasonable by the majority of the patients and voted down.

ACHIEVEMENTS OF PLAN

It is, of course, almost impossible to assess the achievements of patient government with any degree of accuracy. It has resulted in many changes and innovations which seem to be beneficial and which probably would not have taken place otherwise. It has resulted in an apparent improvement in patient morale and in greater patient-staff understanding. Perhaps the most impressive measure of its success is the attitude of the patients toward the idea. Initially, patients tended to be sceptical; it was a good idea, but it wouldn't work. After patient government became established on a ward, the patients who became involved in it became "crusaders" and took an active part in having patient government extended to other wards. The officers of two ward councils recorded an unrehearsed panel discussion explaining patient government which was broadcast over the hospital radio system. When other wards expressed an interest in setting up their own councils, the officers of wards with councils already in operation volunteered to help in organizing the new wards. This change from scepticism to enthusiasm has been paral-

leled by a change in the attitudes of many of the hospital staff. As near as one can gather from casual investigation, most of the personnel who have come in contact with patient government have been favorably impressed. Personnel who initially felt that such a plan would only work on an open ward have encouraged the patients on locked wards to organize their own councils. A rather surprising indication of the respect that some personnel have for patient government's ability to get things done occurred recently when a nurse approached one of the liaison officers with an idea for an innovation in hospital procedure. She wanted him to "have patient government bring up the idea—they'd stand a better chance than I would."

SOME DIFFICULTIES

There have been, of course, some difficulties from time to time. One problem has been the ability of individual patients or cliques to dominate a ward council and thus destroy its democratic purposes. This has been handled to some extent by the patients themselves, who refuse to accept too much "boss rule" and by the fact that the constitutions of the councils call for periodic re-election of officers. A similar problem has been the tendency of withdrawn patients to avoid participation in meetings. This has been, to some extent, offset by the more active patients, who take it upon themselves to stir up interest in the meetings. Often a patient who appears oblivious to what is taking place in a meeting is actually affected by what is going on. On one occasion, a meeting was taken up in a long discussion of how to go about decorating the ward for the Christmas holidays. A patient who had been sitting outside the group and apparently paying no attention to what was going on got up, got himself some water colors and painted some very effective decorations on the walls.

SUMMARY

In summary, our experience with patient government at Togus suggests that such a program represents a valuable supplement to the therapeutic measures being undertaken in the hospital. It calls for no additional personnel, for a minimum of time and effort of those personnel involved, and can result in a marked improvement in ward morale and in patients self-evaluation. The only requirements are the coöperation of administrative personnel and the interest of patients and personnel alike. These can be readily obtained by adequate orientation and a clear understanding of the purposes and functioning of the program.

LARGE VARYING-DENSITY CALCULUS SIMULATING INTRAPELVIC TUMOR WITH STONE

MEYER EMANUEL, M. D.*

Despite the modern facilities and skills available to physicians, it is well recognized that there is still appreciable diagnostic error. To put it another way, one condition may so closely mimic another that even the application of the diagnostic experiences and skills of several individuals fails to unmask the masquerader. When the true picture is finally disclosed, there is usually a feeling that the conclusion reached, though wrong, was at the time hardly escapable.

We report herewith the case of a urological patient to alert physicians to one such situation related to renal lithiasis. A nephrectomy was done for a supposed large intrapelvic tumor apparently associated with an opaque stone, only to find that the kidney pelvis was completely filled with a large so-called "non-opaque" calculus containing a small core which was opaque. In addition, smaller non-opaque stones were found in upper and lower pole calyces.

This case illustrates that non-opaque stones are not necessarily all small, but may be of size large enough to fill a renal pelvis. Further, it demonstrates that group of stones having varying density, i.e., an opaque core and a non-opaque, thick periphery.

CASE REPORT

This patient, R. P., was a 52-year-old, robustly built white male who had a stone removed from his right kidney at another hospital in 1944. Except for vague, mild discomfort related to his scar, this was no longer a source of disturbance. In 1950 he was seen at Togus with backache, most prominent over the left flank area, and symptoms of prostatism. Neither renal area was sensitive to percussion. Excretion urography showed a small stone lodged in an upper minor calyx of the left kidney. The patient was advised that in the near or more distant future surgery might be required, but that there was a chance that the stone would pass spontaneously because of its small size. He was to report at intervals so that both renal and prostatic symptoms could be followed.

He failed to report until 7-9-54, when he complained of left lumbar pains and urinary irritability. Later he added that he had had some episodes of gross hematuria. The pain was only slightly more prominent than in 1950. Three months before the last admission he fractured both wrists. Casts had been applied for six weeks. There was very slight left flank percussion tenderness, and the kidneys were not palpable. The blood urea nitrogen was 13.5 mg. %.

The urine was clear, straw color, S.G. 1.020, acid reaction, no albumin or sugar, and microscopically showed a few RBC and a few WBC per high power field.

UROGRAPHY AND PYELOGRAPHY

Excretion urography showed evidence of function on both sides. Detail was incomplete, but the right kidney appeared to be fairly normal in architecture, while the left suggested a massive intrapelvic filling defect. Just proximal to the left ureteropelvic junction lay a definite calculus approximately 1.5 cm. in diameter. Bilateral retrograde pyelography showed the right pelvicalyceal system to be normal. The left showed a bizarre filling defect involving the entire pelvic space with some of the calyces indefinitely filled and appearing ragged, while some, more faintly visualized with the medium, seemed to have sharper margins. The urine from the right kidney showed only a rare WBC and RBC. The left showed 6 to 7 RBC and only a rare WBC. No organisms grew on culture from either urine. A few days later the left pyelogram was repeated with the same findings. On this occasion urine was collected for examination by the Papanicolaou technique and was reported to show abnormal cells, grade II, "suggestive of tumor."

Since at cystoscopy dye was seen to come from both ureter orifices, it was known that whatever the pathology, there was no obstruction and there was no urgency for exploration, particularly because it was felt that there was something atypical in the findings and that, though tumor seemed likely, after a short interval another retrograde pyelography should be done and compared with the earlier ones. In the meantime, one of the previously fractured wrists, which needed surgical intervention, was attended to. Approximately six weeks later retrograde pyelography was repeated with no retrogression of the filling defect in the left kidney. Another left kidney urine examined for cells was courageously reported by the pathologist to show abnormal cells "grade IV positive" highly suggestive of tumor.

CONSULTATION

The patient was presented to the Tumor Board, where the following features were noted: 1. Bizarre, large pelvicalyceal filling defect suggestive of neoplasm. 2. A definitely visible calculus near the outlet of the pelvis associated with the tumor. 3. Abnormal cells in the left kidney urine. 4. RBC in the left kidney urine. 5. Normally functioning right kidney. That the filling defect could be due to clots was mentioned and ruled out because of lack of

* Chief, Urology Service, VA Center, Togus, Maine.

From the Veterans Administration Center, Togus, Maine.



Fig. 1

Bilateral retrograde pyelography. The left kidney shows a prominent irregular pelvicalyceal filling defect simulating tumor, and a small pelvic calculus (arrow).

change over the few weeks since first seen and the absence of recent gross hematuria before admission. The urological and roentgenological opinions of several individuals resulted in a decision to explore the kidney with the implication that nephrectomy was almost inevitable, and with the knowledge that the opposite kidney had normal function.

SURGICAL PROCEDURE

At operation the kidney was of normal size. There was no protruding irregularity. The pelvis was intrarenal and heavily surrounded by fibrolipomatous tissue making palpation of the pelvic contents highly inconclusive. Nephrectomy was carried out — with the feeling that circumstances and the available information as interpreted could mean only an intrapelvic tumor. After the kidney was removed preparations were being made to remove the entire ureter and a cuff of the bladder, while the pathologist examined the kidney.

The ureter did not require removal! The kidney was shown to us cut sagittally. It presented a pelvis completely filled with a large, triangular, rough stone, yellow-white in color, with an excentric, slightly elevated, whitish area at the angle corresponding to the pelvic outlet. This latter area appeared to be obviously the opaque calculus seen on X-ray. The remaining bulkier portion of the stone filling the pelvis had been non-opaque, and tumor was not present! Small stones were in the upper and lower pole calyces.



Fig. 2

Sagittal section of kidney showing the large pelvic stone. At the upper end can be seen some of the small calyceal calculi which were non-opaque.

PATHOLOGICAL REPORT

In the pathologist's report is noted: "... The capsule is easily removed, the kidney cuts with average ease, and section shows a staghorn type renal calculus occupying the pelvic portion, measuring 5 x 2.3 cm. at the widest point. There are small yellow calculi in the calyces of both upper and lower pole. The cortices are average in width. Renal vessels not conspicuous. Pelvic epithelium is opaque. The hilus contained fat, and the renal pelvis was not extrarenal. Microsection shows portions of the kidney tissue in which there are collections of round cells between the glomeruli and around the tubules. There is an adequate number of glomeruli. The pelvic portion of the kidney shows chronic pyelitis with thickening of the epithelial layer and round cell infiltration. There are a few obliterated glomeruli in the section. Diagnosis: Pyelonephritis secondary to nephrolithiasis."

A qualitative analysis of the stone was done at an outside laboratory. In the general description of the stone is stated: "Extremely large stone, roughly triangular in shape, which measures 4 x 2.5 x .9 cm. The interior is an ochre color. The surface is hard, pinkish, mottled and white. On cutting, a hard cocoa-colored core was found. X-ray shows clearly core



Fig. 3

Photo of X-ray of stone after removal from the kidney. The varying density is clearly shown. Special developing process has made the peripheral "non-opaque" portion much more dense than on the original plate where it was barely visible.

and cortex of different composition. Core is dense and has concentric circle formation typical of phosphate stones. Cortex is barely visible. Typical of uric acid stones."

Four months after operation the patient had no pain in the left flank. Blood urea nitrogen was 10 mg.%, uric acid 5.5 mg.%. He still had lower urinary tract irritability of prostatism.

DISCUSSION

Braasch and Emmett state that "completely non-opaque stones are the bugaboo of the urologist." In the days of less modern X-ray equipment, when visualization and techniques were much poorer, the problem was even more pronounced. It is generally known that a lower relative opacity occurs in stones composed of uric acid, urates, cystine and xanthine. (To this list may be added fibrin and bacterial concretions.) The opacity of a stone is influenced by its size, depth, and chemical constituents. The less calcium present, the less is the visibility of a given stone. The high incidence of visibility of urinary tract calculi in general is due to the high calcium content.

Higgins calls attention to the fact that there is no truly "non-opaque calculus." He points out that it has been shown that even so-called "pure" stones show small amounts of calcium and other metallic elements. Except for the minutest calculi of uric acid, urates, cystine or xanthine, there should be a discernible shadow. However a number of factors serve to mislead the physician in reading the initial film. Most important of these are: 1. Physical char-

acter of the patient. In a stout individual a stone may appear very faint or invisible. 2. Size of the calculus. 3. Position of the kidney. (A stone overlying a bone may not be seen.) 4. Bowel contents. 5. Movement during exposure. 6. Technique of securing the X-rays. Higgins feels that "non-opaque stones" occur more frequently than we are led to presume from a review of the literature.

URINARY STONE OR TUMOR

Muellner states that 6-8% of urinary stones are non-opaque and that most of these consist of uric acid. He indicates that a blood uric acid of 5 mg.% or more is suggestive of uric acid stone although only 11 to 20% of patients with gout show evidence of uric acid calculi. He calls attention to the possible error of mistaking a tumor in the pelvis or ureter for a non-opaque stone. In our patient we had the exact reverse of this situation: a stone was thought to be a tumor!

While most non-opaque stones appear to be more or less homogenous in the degree of opacity, a smaller group shows sharply varying density so that one portion casts a dense shadow while a more peripheral thicker portion with little calcium fails to be visualized. If such calculi are small or only of moderate size there is a good chance that they will be detected on retrograde pyelography since the medium will surround the non-opaque zone and define the double density of the stone. When, as in our case, the stone is very large, filling the entire pelvis and in addition accompanied by smaller non-opaque calculi in the calyces of both poles, a bizarre pyelogram is produced that immediately calls tumor to mind. The presence of the definitely opaque, small stone at the outlet of the pelvis could only amplify probability of an intrapelvic tumor since a very large percentage (25-60%) of squamous cell carcinomata of the renal pelvis may be associated with stone. Infection is also very frequent with such tumors.

Negative shadows on excretory or retrograde pyelography may be caused, not only by non-opaque calculi, but also by neoplasm, clots, air bubbles, inspissated pus, and cystic changes in the mucous membrane. Muellner mentions some of the diagnostic aids in the urologist's bag of tricks in trying to differentiate these various entities. There is the use of the wax bulb attached to a ureter catheter, injection of silver nitrate solution to coat the probable invisible stone, and air pyelograms. Nevertheless he concludes that there is no infallible method to demonstrate the presence, size and location of a non-opaque stone with the facilities available today. He advocates surgical exploration when there is blockage to drainage or when the stone cannot be differentiated from tumor of the pelvis or ureter.

Although we are not in this report concerned with bladder calculi, Higgins and others confirm the fact

that very often such stones cannot be definitely diagnosed by X-ray and that cystoscopy is the more reliable means of identification.

At this time it is not possible to define the exact role of examination of urinary sediments for abnormal cells as a means of diagnosis of renal tumors. The method has shown promise in some cases. On the other hand, it has been demonstrated in case reports that finding of abnormal cells has not always resulted in finding tumor after the kidney was removed.

SUMMARY

So-called non-opaque calculi of the upper urinary tracts, not only may be missed, but are prone to be mistaken for other entities despite modern X-ray equipment and techniques. An illustrative case of one such renal stone is presented to call attention to the probability of encountering such situations.

Our patient had a large non-opaque calculus filling the entire pelvis. A small portion of this stone was opaque to X-ray. Much smaller non-opaque stones were present in the minor calyces of both upper and lower poles of the kidney. This complex produced on excretion and retrograde pyelography a persistent massive pelvic filling defect which was mistaken for an intrapelvic tumor associated with stone. The true nature of the pathology was disclosed only after nephrectomy was done. This was carried out with the knowledge that the opposite kidney was func-

tionally normal, and after it became evident that the pelvis was intrarenal, surrounded by much fat, and not accessible to palpation.

The subject of non-opaque stone in the upper urinary tracts is briefly discussed with special attention to the diagnostic problem it poses.

BIBLIOGRAPHY

1. Higgins, Charles C.: Non-opaque Urinary Tract Calculi. *J. Urol.*, 70:857, 1953.
2. Atkinson, Robert L.: Calculous Pyonephrosis with Squamous Cell Carcinoma of the Renal Pelvis. *J. Urol.*, 63:61, 1950.
3. Ragins, Alex. B., and Rolnick, Harry C.: Mucus Producing Adenocarcinoma of the Renal Pelvis. *J. Urol.*, 63:66, 1950.
4. Youngblood, Vernon H., and Kicklighter, James F.: Squamous Cell Carcinoma of the Renal Pelvis. *J. Urol.*, 67:52, 1952.
5. Oberkircher, Oscar J., et al.: Squamous Cell Carcinoma of the Renal Pelvis. *J. Urol.*, 66:551, 1951.
6. Bunge, Raymond G., and Kraushaar, Otto F.: Abnormal Renal Cytology. *J. Urol.*, 63:464, 1950.
7. Bunge, Raymond G., and Kraushaar, Otto F.: An Early Renal Malignancy Diagnosed Preoperatively. *J. Urol.*, 63:475, 1950.
8. O'Connor, Vincent J.: The Treatment and Prognosis of Papillary Tumors of Renal Pelvis and Ureter. *J. Urol.*, 61:488, 1949.
9. Muellner, S. Richard, and Sears, Bernard: The Problem of the Non-opaque Urinary Tract Stone. *J. Urol.*, 67:832, 1952.
10. Braasch and Emmett: *Clinical Urography*. W. B. Saunders Co., Philadelphia, 1951.

LOBOTOMY PROGRAM FOLLOW-UP REPORT (4-6 YEARS)

ISRAEL ZELTZERMAN, M. D.*

HISTORY OF 1951 REPORT

An initial report on the lobotomy program used in the treatment of neuropsychiatric patients at the Togus Veterans Administration Hospital was presented in the July, 1951, issue of the *MAINE MEDICAL JOURNAL*. This paper is a follow-up on the same initial group of patients, with a more detailed description of the further adjustment of patients A, B, C, and D.

In addition to chronicity of illness and non-response to all available forms of therapy, the following signs were used as criteria in selection of patients: aggressiveness, assaultiveness, hyperactivity, homicidal tendencies, destructiveness, hallucinatory experiences and delusional formations—especially those of a paranoid nature and with considerable emotional tone and to which the patient reacted strongly, tension, worry, fear and agitation. Objectives of treatment had been determined as adjustment outside of the hospital or

better adjustment to the hospital environment. The operation performed was the classical Lysterly, bilateral prefrontal lobotomy.

The original report covered twenty-four patients, excluding four other lobotomized patients, three of whom had died and one who had been transferred to another hospital shortly after operation. Since July, 1951, there has been one more death (November, 1953) in this group of patients, that of a patient age 55, cause of death being hypertensive heart disease and general arteriosclerosis. The present report will deal with the same group of twenty-four patients.

EVALUATION PRESENT STATUS

In evaluating the present status of the lobotomized patients, grades of improvement are considered as none, slight, moderate and marked. None signifies patient is still actively and fairly constantly hallucinated and deluded, anxious, overactive, destructive, aggressive and periodically requires electroshock therapy for control of signs and symptoms and hospital management. Slight improvement denotes hal-

* Chief Medical Officer, VA Center, Togus, Maine.

Neuropsychiatric Hospital, Veterans Administration Center, Togus, Maine.

lucinations and delusions still present but not constantly. Also, the patient is not overactive, destructive or aggressive for any protracted period of time. Infrequent electroshock therapy is necessary for management. Moderate improvement denotes no evidence of patient being aggressive, assaultive or overactive, with little evidences of patient being actively hallucinated or deluded. Personality is fairly well organized as compared to pre-lobotomy status. No electroshock therapy is necessary for management. Patient could be out of the hospital in a sheltered environment. Marked improvement denotes the patient being as described under moderate improvement with additional degree of improvement so that he is able to be out of the hospital or is out of the hospital and making an adequate adjustment in a non-hospital environment. Psychosis is considered to be in partial remission.

In 1951, the following table was used to classify the lobotomized patients :

TABLE NO. 1 (1951)

Diagnosis	Improvement			None
	Marked	Moderate	Slight	
Schizophrenia				
Catatonic	2	1	1	1
Hebephrenic	0	0	3	1
Paranoid	2	0	2	2
Unclassified	3	3	0	1
Manic Depressive	1	1	0	0

At the present time, the same patients are classified as follows :

TABLE NO. 2

Diagnosis	Improvement			None
	Marked	Moderate	Slight	
Schizophrenia				
Catatonic	2	1	2	0
Hebephrenic	0	2	2	0
Paranoid	0	1	2	3
Unclassified	1	3	0	2
Manic Depressive	1	0	1	0

As can be noted from these tables, eight patients were classified as showing marked improvement in 1951. Four patients are so classified at the present time. The greatest change appears to be in this category. It should be stated that of the eight patients considered to show marked improvement in 1951, three are still considered to show marked improvement, three moderate improvement, one slight improvement and one regressed to where he is considered to show no improvement. One patient considered to show moderate improvement in 1951 is now classified as showing marked improvement.

Of the original four patients who were out of the hospital in 1951, two are still out. Of the two who returned, one was out from June, 1949, to April,

1953. He is now rated as showing no improvement (case detailed below). The other was out of the hospital from March, 1950, to May, 1953. When he left the hospital he was considered as showing marked improvement, and is now classed showing slight improvement. In addition to the two patients who left the hospital early in 1951 and are still out, three other patients subsequently left the hospital. In 1951, two of these showed moderate improvement and one showed slight improvement.

Some patients have been able to leave the hospital who otherwise might still be hospitalized. The majority of patients still hospitalized are making a better hospital adjustment than they might otherwise be making. The hydrotherapy suite at this hospital has now been out of operation for five and one-half years. Over the past several years, also, there has been a definite reduction in the use of mechanical restraint. Drug sedation also has been markedly reduced. In addition to lobotomy, other modalities of treatment have been in use and still others newly introduced, but it is felt that the lobotomy program has contributed to the overall therapeutic situation.

Summary of progress of cases reported in 1951:

Patient No. 1: Left hospital in July, 1949, at which time was considered markedly improved. Progress note 3-25-53: "Gets along well at home without pushing, is of considerable help in doing the chores at home. He is friendly and quiet and gets along well with informant's children at their own level. Patient is tidy and orderly and makes his own bed. He is more careful with matches and cigarette butts than the ordinary person. There is never any evidence of hallucinations or delusions. Patient seems content and voices no plans for the future or a desire for change. No convulsions. It seems that patient's condition is rather stationary and he adjusts well at a childish level in his brother's home." On April, 1953, he was admitted to a hospital with an ulcer of one month's duration on his leg. On April 11, 1953, he developed abnormal behavior and had to be re-hospitalized here. Since that time he has been manneristic, unpredictable, assaultive, and aggressive. Frequent electroshock therapy has been necessary for control of symptomatology. Condition is somewhat similar to pre-lobotomy, and he is considered to show no improvement.

Patient No. 2: Condition considered slightly improved in July, 1951. There has been little change in his condition since then, although it is felt he has not maintained the level he originally attained. He is disturbed, aggressive, tense and anxious. Lobotomy was done in January, 1949. He had electroshock therapy in 1951, but has had none since. Although he is considered to show no improvement, he is more easily managed than prior to lobotomy.



MARTYN A. VICKERS, M. D.

President, Maine Medical Association

1955 - 1956

MARTYN A. VICKERS, M. D.
President, Maine Medical Association
1955 - 1956

Martyn A. Vickers, M. D., of Bangor, was elected President of the Maine Medical Association on Monday, June 20, 1955, during the Association's 102nd annual session at Rockland.

Born in 1906 in Brownville Junction, Dr. Vickers took his Bachelor's degree at Catholic University in 1929 and his M. D. at Georgetown University in 1933. A resident of Bangor for some years, he has taken on many civic responsibilities in addition to his professional work. He is a member of the Executive Staff and Chief of the Allergy Service at the Eastern Maine General Hospital and is also Director of the Maine Pollen Survey. A Fellow of the American Academy of Allergy and the American College of Allergists, Dr. Vickers holds membership in the Penobscot County Medical Society, the Maine Medical Association, and the American Medical Association. He is Chairman of the State Association's Committee on Education and has served as delegate to the American Medical Association since January, 1951.

Dr. Vickers is married to the former Mary Hilda Finnegan of Bangor. They have four children; Ann Marie, a junior at Chestnut Hill College, Philadelphia; Katherine M., a sophomore at St. Elizabeth's College, Morristown, N. J.; Mary Hilda, a senior at John Bapst High School in Bangor; and Martyn A., Jr., in the eighth grade.

The Journal of the Maine Medical Association

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Rockland in 1955

Registration

Over 300 physicians registered at the 102nd annual session of the Maine Medical Association in Rockland last month, and were treated to an unusually well prepared scientific program designed to be of equal interest to every member of the Association. We are not going to elaborate on the program inasmuch as you all are familiar with its content. We do, however, want to call your attention to the fact that the Association has 821 members! The registration at our June meetings seems to hover around the 300 mark each year — and we hope that you will make a special effort to attend in 1956 and give us as near 100% registration as is possible while still assuring medical coverage for the citizens of Maine.

We have not received actual figures from the Woman's Auxiliary but understand that 170 members of that group were registered for the Seventh Annual Convention held in conjunction with the meeting of the Maine Medical Association. And, we had ninety-three detail men representing the fifty-three companies participating in the Technical Exhibit.

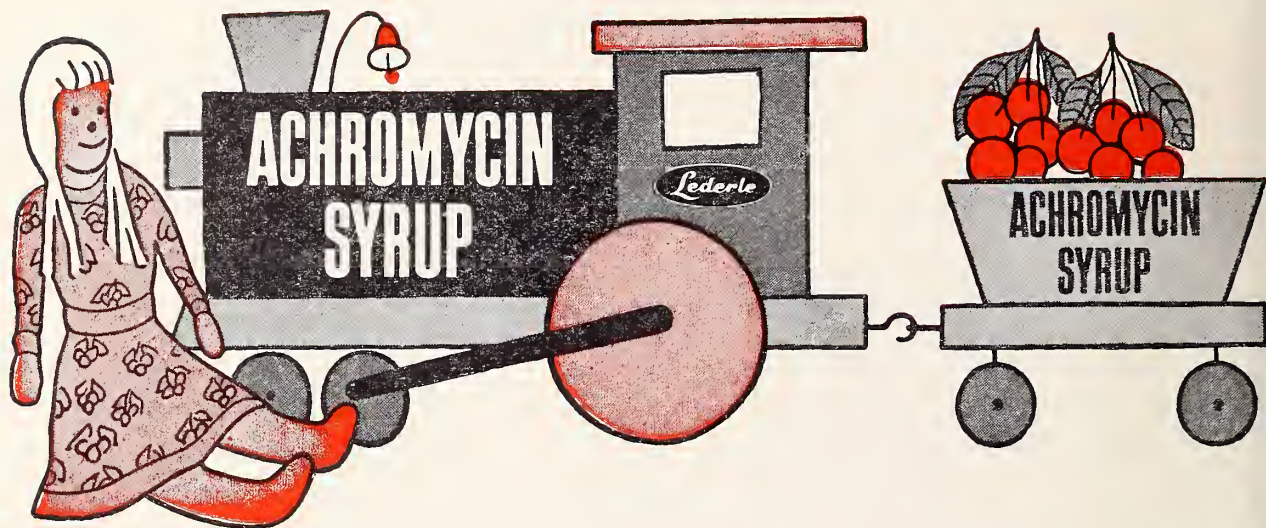
House of Delegates

The two meetings of the House of Delegates were held as scheduled and with remarkably good attendance. We commend the county societies for appointing as delegates members who are obviously interested in the affairs of the Association.

As is customary, the Budget for the coming year was on the Order of Business for the First Meeting of the House. And, in order that you may know what happens to your "dues dollars" the approved budget for 1955-1956 follows:

Office Expenses:	
Salaries:	
Executive Director	\$ 7,000.00
FICA	84.00
Secretary-Treasurer	4,000.00
FICA	80.00
Stenographer	2,340.00
FICA	46.80
Travel (Executive Director and Secretary-Treasurer)	1,750.00
Office (Rent, telephone, supplies, etc.)	3,250.00
General Expenses:	
President's Expenses	425.00
Annual Session	2,000.00
Council	600.00
Committees:	
Medical Advisory (Legal Counsel)	1,000.00
National Education	500.00
Standing and Special	300.00
Delegates:	
American Medical Association	750.00
New England Medical Association	300.00
New England Council Dues	100.00
Annual Roster	175.00
Woman's Auxiliary	150.00
JOURNAL:	
Editor's Salary	500.00
FICA	10.00
Printing, Plates, Office	12,000.00
Travel	200.00
American Medical Association Clinical Session — Boston, November 29-December 2, 1955	
	800.00
Total	\$38,360.80

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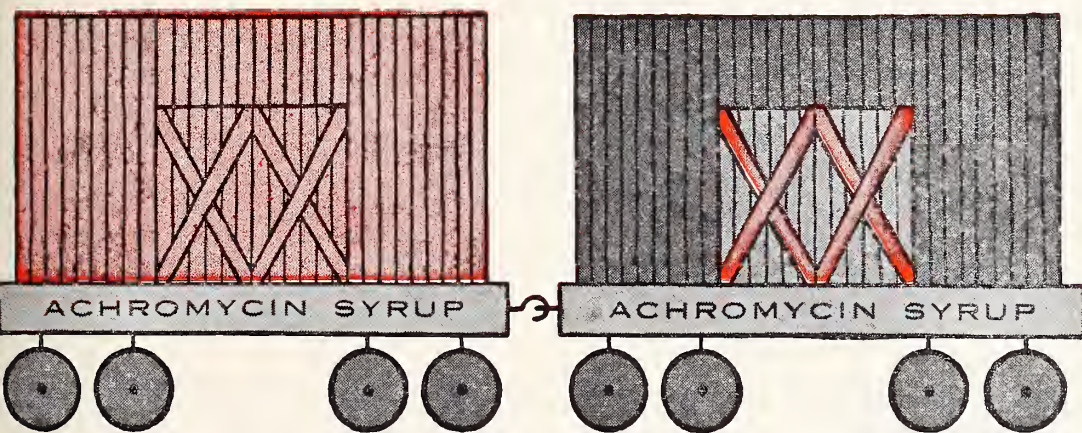
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The estimated income from State Dues, JOURNAL Advertising and Subscriptions, Exhibit Space Rentals, and Investments is \$39,044.36. (The Auditor's Report for 1954-1955 is published elsewhere in this issue of the JOURNAL and we think that it will be of interest to every member.)

Two Councilors were elected at the Second Meeting of the House of Delegates, Raymond E. Weymouth, M. D., of Bar Harbor for the Fifth District, consisting of Hancock and Washington Counties; and Allan Woodcock, M. D., of Bangor for the Sixth District, which includes Aroostook, Penobscot and Piscataquis Counties.

The stenographic record of the meetings of the House of Delegates is on file in the Association's office and is available to any member of the Association.

General Assembly

Martyn A. Vickers, M. D., of Bangor, was elected President of the Maine Medical Association at the General Assembly on Monday, June 20, at 4.00 P. M. And, at this same session, Armand Albert, M. D., of Van Buren was elected President-Elect.



Armand Albert, M. D.

Honorary Medals

Presentation of the Association's Honorary Medals was made by William F. Mahaney, M. D., retiring President, at the Annual Banquet, Tuesday evening, June 21st.

The following members who graduated from medical school in 1905 received Fifty-Year Lapel Pins: Daniel F. D. Russell, M. D., Leeds (Bowdoin Medical School), Leslie H. Huggard, M. D., Limestone (University of Vermont Medical School), Nathaniel B. T. Barker, M. D., Yarmouth (Bowdoin Medical School), Thomas C. McCoy, M. D., Waterville (Co-

lumbia University College of Physicians and Surgeons), George E. Dash, M. D., Boothbay Harbor (Eclectic Medical Institute), DeForest S. Day, M. D., Wiscasset (Bowdoin Medical School), Clarence R. O'Crowley, M. D., South Bristol (Columbia University College of Physicians and Surgeons, 1904), LaForest J. Wright, M. D., Corinna (University of Vermont Medical School), Fred J. Pritcham, M. D., Greenville Junction (Bowdoin Medical School), Oscar F. Larson, M. D., Machias (Albany Medical College).

Fifty-Five Year Pins were presented to the following members who received their Fifty-Year Medals in June, 1950: Albert H. Damon, M. D., Limestone; Eugene H. Doble, M. D., Presque Isle; Alfred W. Haskell, M. D., Portland; Samuel G. Sawyer, M. D., Portland; Eugene M. McCarty, M. D., Rumford; Luther S. Mason, M. D., Bangor, and Owen B. Head, M. D., Sanford.

A Sixty-Year Pin was presented to Wallace E. Webber, M. D., of Lewiston. Dr. Webber was graduated from Bowdoin Medical School in 1895.

Council

At the organization meeting of the Council on Monday, June 20, Francis A. Winchenbach, M. D., of Bath was elected Chairman for 1955-1956. Daniel F. Hanley, M. D., of Brunswick, was elected Executive Director of the Association and Editor of THE JOURNAL OF THE MAINE MEDICAL ASSOCIATION, while Esther M. Kennard was elected Secretary-Treasurer and Business Manager.

And, at a meeting on Tuesday, June 21, the Council — at the suggestion of many members — voted to hold the 1956 annual session at The Samoset. Information concerning this meeting will begin appearing in the pages of the JOURNAL in the very near future — be on the lookout for it. (Francis H. Sleeper, M. D., Superintendent, Augusta State Hospital, Augusta, is Chairman of the Program Committee.)

A Personal Note From Your Secretary-Treasurer

On Sunday afternoon, June 19, I received a "token of appreciation" in the form of a Plymouth Four-Door Sedan which literally took me off my feet. It was impossible at that time for me to make the sort of response called for — I just couldn't say a word. As a matter of fact, I find it difficult even now to express what I feel, but hope that you will accept my "thank you" in the only way I have to reach you all. I want to record my special appreciation to Dr. Mahaney, who, I understand, originated the plan and carried it through without my knowledge. I am fully cognizant of the additional work it meant for him during a year already full-up with Presidential duties.

I had hoped to have a picture of the car for this issue of the JOURNAL but that will come later. Again — many, many thanks!

ACROSS THE DESK

No Fall Clinical Session for the M.M.A.—In its stead, the A.M.A. comes to Boston from Tuesday, November 29 through Friday, December 2, 1955. All physicians interested to appear on the lecture program are urged to communicate immediately with the Chairman of the Program Committee, Dr. Theodore L. Badger, Massachusetts Medical Society, 22 Fenway, Boston 15, Massachusetts.

The lectures and the scientific exhibits add up to a wonderful educational experience that will be long remembered. The A.M.A. will not come to Boston again for several years, so let us make the most of this fine opportunity within reach of us all. Hotel reservations are already being made.

Doctors of Medicine, U.S.A.—The year 1954 saw the physician population in the United States reach the highest point in the country's history. Li-

censes to practice as doctors of medicine were issued to 7,917 new holders. The majority of these came from 73 American and 11 Canadian medical schools. (Actually, the 80 American medical schools graduated 6,861.) Examinations were taken by 1,642 graduates of foreign medical schools.

Of the American schools, thirteen turned out candidate groups without a single failure in Board examinations. They were: Albany Medical College, Chicago Medical School, Georgetown University, Stanford University, the State University of Iowa, Wayne University, and the Universities of Buffalo, Colorado, North Carolina, Rochester, Southern California, Utah and Washington. To bring the population picture closer home, 489 physicians were added to the New England area during 1954; and 86 were licensed to practice in Maine — 30 by examination

Continued on next page

Status of Health Legislation, 84th Congress (As of July 1, 1955). In the following table you will find an up-to-date compilation of the status of the more important health bills in this session of the 84th Congress. Bills on which there has been no significant action are listed at the bottom of the table. When developments warrant, a revised table will be printed.

SUBJECT	BILL NO.	HOUSE	SENATE
Dr. Draft Extension*	H. R. 3005	Passed 6/28	Passed 6/28
\$100 Extra Pay*	H. R. 3005	Passed 6/28	Passed 6/28
Disability Payments	(No Bill)	Hearings Held	
Jenkins-Keogh	H. R. 9, 10	Hearings Held	
Free Salk Vaccine	S. 1984 and 2147		Hearings Held
	H. R. 6286	Hearings Held	
Amend Biol. Law	H. R. 6207	Hearings Held	
Mental Health Survey	H. J. Res. 256	Passed 4/21	
	S. J. Res. 46		Hearings Held
Mental Health Grants	H. R. 3458	Hearings Held	
	S. 886		Hearings Held
Medical Education Aid	H. R. 4743	Hearings Held	
	S. 1323		Hearings Held
Lab Research Grants	H. R. 3459		
	S. 849		Hearings Held
Narcotics Survey	S. Res. 67		Passed 3/18
Practical Nursing	S. 886		
	S. 929		Hearings Held
Water and Air Pollution Grants	S. 890		Passed 6/17
	S. 928	Favorably Reported	Passed 5/31
Bricker Amendment	S. J. Res. 1		Hearings Held

No Progress On Following: Health reinsurance (H. R. 3458, S. 886), mortgage loan guarantees (H. R. 3458, S. 886), military medical scholarships (H. R. 4645, S. 1444), dependent medical care (H. R. 2685, S. 934), PHS grants revision (H. R. 3458, S. 886), mothers' and crippled children's grants (H. R. 3292), medical care for the indigent (H. R. 3293, S. 1198), raising U. S. contribution to WHO (H. J. Res. 293), illness inventory (H. R. 4098), omnibus narcotics control (H. J. Res. 141, S. J. Res. 19).

* The House bill to extend the doctor draft (H. R. 6057) was left to die in the Rules Committee when the Senate added the doctor draft extension to the bill extending the regular draft (H. R. 3005). The Joint bill then was enacted.

and 56 by reciprocity. And during the last fiscal year 49 new members joined the Maine Medical Association.

Hill-Burton Hospital Construction Program—has passed the 2-billion-dollar mark since its beginning nine years ago. To date, 2,481 projects have been approved, with an aggregate estimated cost of \$2,004,549,450. Projects actually completed and in operation number 1,876, with 448 more under construction and 157 additional in the initial approval stage. In all, the program is responsible for adding to the facilities of the country 116,983 hospital beds and 458 health centers, and it is making possible also the integration of 78 health centers with general hospitals. The Federal Government picks up about one-third of the tab on this program and has contributed to date \$662,720,377.

Maine's share in this program is of special interest to us. In 1954, Maine received \$465,637. from a total appropriation of \$65,000,000. Amendments in that year enlarged the scope of the act to include such special facilities as clinics and hospitals for the chronically ill; and of the 1955 total appropriation of \$96,000,000. Maine received a total of \$834,266.

With the same appropriation for 1956 Maine will stand to benefit by another \$834,266.

Federal Surplus Property Bill HR 3322, passed by the House and Senate of the United States (and, by publication time, expected to have been signed by President Eisenhower), makes large quantities of Government surplus available for donation to hospitals, health departments and medical schools. Terms of transfer will be more liberal than heretofore. For example, recipients of personal property valued at less than \$2,500 will receive clear title outright, whereas previously they were required to use the donated item for four years before the title was theirs. For full information and a list of items available, those interested may write to Stephen L. Simonian, Room 1200, 42 Broadway, New York 4, New York (Telephone: Whitehall 3-2424, Ext. 52).

Times Are Changing—at least they are different in some areas. The Medical School of the University of Louisville has 26 places in next year's freshman class still unfilled. All qualified Kentuckians who have applied have already been accepted.



Administrators of Maine health and welfare agencies are directing plans for the 21st annual New England Health Institute to be held at Colby College, Waterville, on August 30-31, September 1. Pictured here, left to right are: John Q. Douglass, Director, Bureau of Social Welfare, Maine State Department of Health and Welfare; Dr. Edward W. Colby, Director, City of Portland Health Department, who is Institute Chairman; and Dr. Dean H. Fisher, Commissioner of the Maine State Department of Health and Welfare. "Lighthouses in a Changing World" is the Institute theme.

NECROLOGY



Joseph Blake Drummond, M. D.
1884 - 1955

Dr. Joseph Blake Drummond died in Portland, April 21, 1955. Born in Portland, July 12, 1884, he attended the Portland schools and Bowdoin College, where he graduated in 1907. In both high school and college, he was an outstanding end on the football field and captain of a winning varsity football team his senior year at Bowdoin.

He graduated from the Medical School of Maine in 1910 and interned at the Maine General Hospital. He was appointed Adjunct Surgeon on the Maine General staff in 1918 and later became an Associate Surgeon. From 1922 he confined his medical practice entirely to the State Street Hospital, and three years later he bought that hospital and was its chief surgeon until his retirement in 1944.

During World War II he was appointed Chief Medical Officer of the South Portland Shipyards and did a tremendous piece of work in organizing a staff for the medical and surgical care of thousands of workmen.

In the early years of his practice, Dr. Drummond acted as demonstrator and instructor of anatomy in the Medical School of Maine and later was elected Professor of Anatomy in the Medical School, serving five years in that position. In 1942 he was awarded an honorary doctorate of science by Bowdoin College.

A member of our State and local societies, Dr. Drummond was especially honored by being elected to the American

College of Surgeons, the New England Surgical Society, and the American Board of Surgery.

Knowing him as a doctor and surgeon, we admired his skill, his quickness and rightness of decision, his courage in undertaking the running of his own hospital and in supervising the medical and surgical services at the Shipyards, and the easy way in which he organized the care of thousands of compensation injuries through many years.

Knowing him as a man, we loved him because he was always ready to go all out for a friend. To many a young doctor he gave help and a good start. We loved his wholehearted interest in sports of all kinds: football, tennis, golf, yachting, baseball, and horsemanship. Into all of these at one time or another he entered enthusiastically. To attend a football or baseball game with him in person, or even in later years on television, was a real treat.

His health forced his retirement in 1944, but he filled his days with many splendid hobbies. He grew roses and evergreens in the North and grapefruit and avocados in the South. He gathered together an unusual library and had a marvellous collection of old clocks. Always a great lover of music, he had a superb collection of classical records and loved to have his friends come to enjoy them with him.

PHILIP P. THOMPSON, M. D.

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COUNTY SOCIETY NOTES

Washington

June 10, 1955

A regular meeting of the Washington County Medical Society was held on Friday, June 10, at DeMonts Restaurant, Calais, Maine, with eighteen members and guests present. Dr. E. B. Johnston of St. Stephen, N. B., president of the Society, presided at a business meeting. The following members were appointed to serve on a poliomyelitis committee: Drs. John T. Metcalf, Hazen C. Mitchell, Samuel R. Webber, Perley J. Mundie of Calais, and Dr. Karl V. Larson of East Machias. To serve on a Blue Shield Committee, Drs. Metcalf, Webber and Mitchell of Calais.

Dr. John Metcalf of Calais will serve as delegate to the Maine Medical Association meeting in Rockland on June 19-21 from both the Washington County Medical Society and the New Brunswick Medical Association.

Dr. A. W. Torrie, orthopedic surgeon from Fredericton, N. B., was introduced by Dr. Hazen Mitchell of Calais. Dr. Torrie spoke on Hip Surgery. This type of surgery does much to alleviate pain and severe limping. There has been a considerable advance in hip surgery lately with the use of prothesis to replace damaged bone at the head of the femur. Congenital dislocation of the hip is treated much differently according to the age of the patient, with closed reduction used in the very young, open reduction from about 4-10. Over 10, open reduction and shelf building and over 20, replacement by a prothesis. Fusion of femur to pelvis was formerly used very extensively especially in polio patients but is now rarely used because of advancement in prothesis. In hip fractures in the elderly, either pins or plastic prothesis are used. Metal prothesis has to be used in the younger age group because the plastic prothesis will eventually show some wear. In extreme cases of hip injury it has been possible for the patient to get around with the whole head of the femur removed.

Following this most excellent presentation, a lobster dinner was served.

KARL V. LARSON, M. D.,
Secretary.

NEWS AND NOTES

Maine Arthritis and Rheumatism Foundation Scientific Session at the Veterans Administration Center, Togus

July 29, 1955—10.00 A. M.

Speaker and Discussor—Currier McEwen, M. D.,
Professor of Medicine,

New York University College of Medicine

All interested physicians are invited to attend this session

New England Health Institute Twenty-First Annual Session Colby College, Waterville, Maine August 30, 31, September 1

August 30—8.00 P. M.—Opening Meeting

Welcome: The Honorable Edmund S. Muskie, Governor

Speaker: O. Spurgeon English, M. D., Chairman Department of Psychiatry, Temple University Medical School

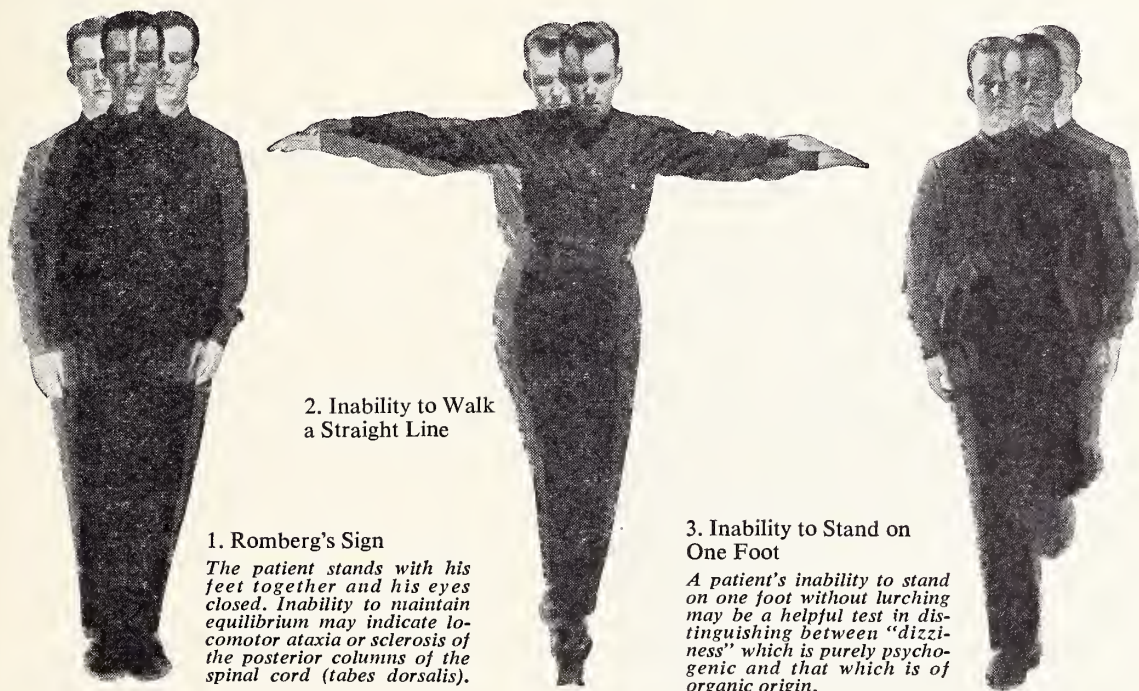
Subject: Lighthouses In a Changing World

Continued on page 212

DRAMAMINE® IN VERTIGO

Notes on the Diagnosis and Management of "Dizziness"

II. False Dizziness



False dizziness is a sensation of sinking or lightheadedness which is often of psychogenic origin. It should be distinguished from true "dizziness" or vertigo¹ in which there is a definite whirling, moving sensation.

Unsteadiness, lightheadedness and similar manifestations of false dizziness² may be psychogenic or the result of arteriosclerosis, hypoglycemia, drug sensitivity and general metabolic disturbances such as anemia and malnutrition. Hypertension is often the cause of these symptoms.

Psychogenic dizziness probably originates at the highest brain centers. It may be described as a sense of uncertainty with occasional mild lurching but not to the point of falling. In these patients there is no nausea, no disturbance of vestibular pathways and otologic and neurologic examinations are negative. The sensation is unaffected by head movement. Symptoms usually disappear³ with complete rest.

Dramamine® has been found highly effective in many of the conditions already mentioned. Maintenance therapy with Dramamine will often keep the patient from becoming incapacitated by his condition.

Dramamine is also a standard for the management of motion sickness and is useful for relief of nausea and vomiting of fenestration procedures and radiation sickness and for relief of "true dizziness" of other disorders.

Dramamine (brand of dimenhydrinate) is supplied in tablets (50 mg.) and liquid (12.5 mg. in each 4 cc.). G. D. Searle & Co., Research in the Service of Medicine.

1. Swartout, R., III, and Gunther, K.: "Dizziness:" Vertigo and Syncope, GP 8:35 (Nov.) 1953.
2. DeWeese, D. D.: Symposium: Medical Management of Dizziness. The Importance of Accurate Diagnosis, Tr. Am. Acad. Ophth. 58:694 (Sept.-Oct.) 1954.
3. Kunkle, E. C.: Central Causes of Vertigo, J. South Carolina M. A. 50:161 (June) 1954.

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ROUNDWORMS

***SYRUP OF 'ANTEPAR'** Citrate brand
Piperazine Citrate

Bottles of 4 fluid ounces, 1 pint and 1 gallon.

***TABLETS OF 'ANTEPAR'** Citrate brand
Piperazine Citrate

250 mg. or 500 mg., Scored

Bottles of 100.

Pads of directions sheets for patients available on request.



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August 31—Forenoon—Three general sessions
Our Changing Community
The Young In Our Community
The Aging In Our Community

Afternoon—Ten panels, simultaneously conducted
Subject: Through Prevention and Rehabilitation to Optimal Health

September 1—Forenoon—Three general sessions
The Job Ahead—
Thinking About It
Planning For It
Acting To Meet It

Afternoon—Institute Summary

For further information write to:
New England Health Institute,
c/o Department of Health and Welfare,
State House, Augusta, Maine

State Polio Preparedness Committee Holds Yearly Meeting

Called by the chairman, Dr. Ella Langer of Augusta, Director, MCH and CC Services, State Department of Health and Welfare, the State Polio Preparedness Committee — which serves as advisory committee to the National Foundation for Infantile Paralysis for Maine—held its yearly meeting on June 1 in the office of the Director, Maine Medical Center, Portland.

In addition to the chairman the following attended the meeting: George Hawkins, Representative, Maine NFIP; Dr. Edward Asherman and Dr. Thomas Foster, Portland; Miss Helen Dunn, Augusta, Director, Public Health Nursing, State Department of Health and Welfare; William A. McCandless, Portland, Chairman, Cumberland County Chapter (NFIP); John Barker, Assistant Director, Maine Medical Center; Miss Ruth T. Clough, Health Education Consultant, State Department of Health and Welfare.

GENERAL POLICY REVIEW

The current policies of the National Foundation for Infantile Paralysis were reviewed by Mr. Hawkins for the information of the Committee. Policies respecting medical and nursing care; transfer of polio equipment; hospitalization and needed payment of bills remain the same with this exception: the National Foundation will not pay for hospital care of non-paralytic polio cases beyond the fifteen-day period.

Chapter chairmen have been notified that cases referred to the Chapters for payment must be completed on Form 609—a supply of which has been placed with each Chapter.

The NFIP will not carry on an emergency campaign this year.

In response to questions, the following points were brought out: special duty nurses for polio care will be recruited as is customary through the Red Cross; will be under a 30-day contract approved by local Chapter chairmen; if hospitalized patient has Blue Cross insurance, he can expect coverage for fifteen days following diagnosis. On cases of questionable diagnoses, NFIP will pay for a 4-day hospital coverage while diagnosis is being established.

If Chapters run out of funds, they can request assistance from the NFIP.

POLIO CLINICS

These are continuing at the Maine Medical Center on a monthly basis. Patients needing such treatment from other areas are sent either to the Eastern Maine General Hospital in Bangor, the Central Maine General Hospital in Lewiston or to the Hyde Memorial Rehabilitation Hospital, Bath, for physical therapy.

Following discussion of general policies governing follow-up of non-paralytic cases in clinics, it was agreed that a uniform procedure of muscle-grading of all diagnosed non-paralytic polio cases be established in State CC clinics. This, it is felt, will be of value to physicians generally as well as utilize more effectively the clinic time. It was suggested that physi-

cians referring such cases to the State Crippled Children's clinics stress their desire to have the clinic orthopedic nurse do muscle grading.

EDUCATION

The State NFIP office has available professional and lay educational materials; films, posters, exhibits. NFIP continues to offer health education scholarships on a state level; contemplates sometime in the future more refresher courses on various aspects of polio management. An expressed need is that of polio health education for the schools and it is felt that ways to better utilize health education aids in this respect should be explored continuously.

Polio Posters are being placed with all schools for general education on preventive aspects. Kits of informational and educational materials—lay and professional—will be sent to the larger hospitals throughout the State for their use as needs indicate.

POLIO FACILITIES

Considerable discussion was had on the following matter: lack of uniform procedures respecting use of established polio facilities in the hospitals of the State under direction of trained professional teams through which the NFIP offers complete services to polio patients.

It was forcibly brought out in the discussion that the contributions made by the people of Maine for the benefit of polio victims go toward the provision of such services within this State and that apparent lack of understanding of this fact on the part of the physicians and the polio patients and their families has led to a practise whereby families or patients retaining their own physicians expect the physician to submit his bill for care either to the Chapter or to the family which in turn submits the bill to the Chapter for payment; and that since there is no recognized standard fee for such services, this matter is customarily and variously handled by the Chapters in accordance with accepted practises in the area.

RECOMMENDATIONS

In light of the above, and in the belief that the attending physician is the one best able to acquaint families with the fact that there are adequate facilities *within the State* for the care of the polio patient as well as to urge that polio patients utilize such facilities, it was voted that a physician representative of this Committee take the matter before the House of Delegates of the Maine Medical Association at its next meeting asking their coöperation toward gaining physician acceptance of this fact and seeking approval of the principle involved in the following procedure, namely, — that where families of polio patients or patients themselves do not choose to use existing facilities in the State but rather employ their own physician, payment of said physician becomes the responsibility of the individual concerned and the NFIP Chapter shall not be billed. It was also recommended that this matter be given publicity through the MAINE MEDICAL JOURNAL.

Continued on page 215

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Is Worth Two on the Books*

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In clinical trials, over 80% of cases have been cleared of the infection by one course of treatment with 'Antepar.'

Bumbalo, T. S., Gustina, F. J.,
and Oleksiak, R. E.:
J. Pediat. 44:386, 1954.

White, R. H. R., and
Standen, O. D.:
Brit. M. J. 2:755, 1953.

against **ROUNDWORMS**

"Ninety per cent of the children passed all of their ascarides . . ."

Brown, H. W.:
J. Pediat. 45:419, 1954.

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Tuckahoe, New York

TUBERCULOSIS ABSTRACTS*

Issued by the National Tuberculosis Association

The Elimination of Tuberculosis From the Midwestern States in the Next Fifty Years

By David T. Smith, M. D., Diseases of the Chest, December, 1954.

The National Tuberculosis Association was founded fifty years ago. At that time the public believed that tuberculosis was inherited and that to plan its control was a utopian dream. The death rate in the death registration area was 200 per 100,000, with the major part of the deaths in infants and young adults. In the northeastern states nearly 100 per cent of the population had a positive tuberculin test by the age of 20. There were only a few thousand beds for patients with tuberculosis in the entire United States. The X-ray technique for finding tuberculosis was undeveloped and case-finding clinics as we know them today were non-existent. There were only two encouraging factors: deaths from tuberculosis had been almost twice as frequent 50 years before and a new organization had dedicated itself to the elimination of this dreadful disease.

It is probable that the death rate from tuberculosis in the midwest was never as high as in the northeast. There the standard of living was higher and the opportunity for infection was less than in the more crowded northeastern states.

By 1920 in the midwest there were enough sanatorium beds to isolate and treat most of the known active cases. However, many cases were missed until the X-ray method had been perfected and larger segments of the population X-rayed.

There are no accepted criteria for determining when tuberculosis is under control in an area. It is suggested that tuberculosis be considered under control when the death rate is five or less per 100,000 of the population and five per cent or less of the school population have positive tuberculin tests. Wisconsin is approaching this goal of control; the death rate for 1952 being 6.5 and tuberculin tests in school children in 1950 five per cent positive. The other midwestern states are approaching the status of control.

When tuberculosis is under control then we can begin to plan for its eradication. To consider the crude overall death rate alone is misleading. The age and sex groups which harbor the remaining reservoirs of infection must be known.

The most striking feature of the 1950 figures is the steady rise in the Wisconsin death rate for men from a low of 0.1 at the age of 12 to 61.2 at the age of 85. The chief reservoir of tuberculous infection is now in males over 40 and females over 60 years of age. This is the seed bed from which the next generation will be infected unless all of the active cases are detected, isolated, and treated.

Almost as many new cases are being found now as were being found when the death rate was four times as high. Indeed, one may conclude that the present death rate is an artificial condition brought about by early diagnosis, better medical and surgical treatment, and is not the result of a natural decrease in either the prevalence or severity of tuberculosis. If treatment should continue to improve we might find ourselves in an anomalous situation in which there were no deaths but with a continuing heavy load of active cases in our hospitals. The greatest defect in our present methods of control is the lack of specific information in regard to the number, age and sex distribution of individuals who have been infected.

The percentage of positive tuberculin reactors is an indirect measure of the amount of undetected open tuberculosis in the community. A positive tuberculin test pinpoints the individuals in the group in which new active cases will develop. A recent conversion from a negative to a positive tuberculin reaction means that there is an active case among the converter's associates. There is a rough correlation between the percentage of the population with positive tuberculin reactions and the number of clinical cases and the number of deaths from tuberculosis.

In 1950 in Wisconsin there was an average rate of 1.7 deaths per 100,000 for the age group under 20 and 26 per 100,000 for the ages of 50 to 80. The school children in Wisconsin have five per cent positive tuberculin reactors and it is assumed that the older groups have a tuberculin rate of 50 per cent.

The corresponding data from Minnesota for the year 1952 shows a death rate of 0.7 per 100,000 in the age group under twenty years of age and in the age group of 50 years and older a rate of 19.4 per 100,000. The tuberculin rate in school children in Minnesota is now about three per cent in contrast to 50 per cent for adults over 50.

Larger samples of tuberculin tests especially among adults of different ages are needed. When the data are available it may be possible to predict from the percentage of positive tuberculin reactors the expected annual number of new cases and of deaths from tuberculosis.

As the program for the elimination of tuberculosis progresses, intensive X-raying of certain segments of the population will probably replace general mass X-ray surveys. Repeated annual X-rays on males over 40 and females over 60 would yield many active cases of tuberculosis, of carcinoma of the lung and of heart disease. Ideally each individual with a positive tuberculin reaction should be X-rayed every year.

The routine X-raying of general hospital admissions has yielded from two to ten times as many active cases of tuberculosis as mass X-ray surveys in the same areas. Before long it will be more economical to carry out admission tuberculin tests on all patients under 40 years of age followed by an X-ray of all positive reactors and continue to X-ray individuals over 40. The same method of tuberculin testing and X-raying could be carried out by private practitioners of medicine.

The key to the elimination of tuberculosis is the tuberculin test which tells us which individuals have living virulent tubercle bacilli in their bodies. An annual X-ray of tuberculin reactors should detect the disease early enough to cure the patient before the infection of others. Routine annual X-rays, without tuberculin tests, should be continued for the heavily infected group of individuals who are now 40 years of age or over.

Some may be shocked by the suggestion that 50 years would be required to eliminate tuberculosis from the midwestern states. This is a conservative estimate based upon assumptions such as: no disturbance in our present high standard of living, no catastrophic war or social upheaval, an increase in case-finding programs and a maintenance of the present sanatorium system with its expensive medical and surgical treatment.

The long incubation period for the development of clinical tuberculosis explains the long time required. To this must be added the prolonged persistence of tubercle bacilli in the bodies of those who have been treated and are apparently well. All physicians can recall instances where a person was "cured" in his twenties and has remained well until he relapsed in his seventies. Even more disturbing is the young child who is infected and does not develop clinical tuberculosis until old age.

Leprosy is the only other human disease which has a comparable long incubation period and a comparable long period of infectivity. Leprosy was eliminated from Europe between 1300 and 1600 A. D. by an intensive program of isolation. It required 300 years to eliminate leprosy from Western Europe. It did not disappear spontaneously and persists even today in tropical countries.

(The printing of Tuberculosis Abstracts is made possible by the cooperation of your local tuberculosis and health association.)

* From Vol. XXVIII, July, 1953, No. 7.

News and Notes—Continued from page 213

A further recommendation of the Committee follows: that the representative request the House of Delegates to appoint a State Medical Polio Advisory Committee to serve in advisory capacity to the NFIP and allied groups and agencies on matters of medical concern.

FURTHER ACTION

It was agreed that Dr. Langer follow the customary procedure of approaching all hospitals to learn which of these agree to accept polio cases this year, and that a list of consenting hospitals be published through the *Weekly Bulletin* of the Department of Health and Welfare and the *MAINE MEDICAL JOURNAL*; also, the present location of polio equipment existing in the State.

The State CC Services will continue to notify the State NFIP office of all cases reported to the Bureau of Health and also of cases which have been discontinued under the State CC Services, by reason of having reached the age of 21; will send copies of all correspondence with Chapters to the same office.

FUTURE MEETINGS

It was agreed that unless some emergency need exists for this purpose, no future meetings of the Committee will be planned for this year.

Mental Health Clinic Schedule

The Division of Mental Health offers psychiatric clinic service to children and adults in the following cities:

Portland — Health and Welfare Department, 178 Middle Street. Every Tuesday.

Lewiston — Out-Patient Department, Central Maine General Hospital. Every Monday.

Augusta — Bureau of Health, Division of Mental Health. By Appointment.

Waterville — Mansfield Clinic, Thayer Hospital, 3rd Wednesday.

Bangor — Out-Patient Department, Eastern Maine General Hospital. 1st Wednesday afternoon.

Valentine School, Union Street. 1st Thursday.

A traveling clinic visits the following towns and cities at irregular intervals: Caribou, Houlton, Lincoln, Machias, Rockland and Rumford. The Portland Clinic is open daily with a staff of 1 psychiatric social worker and 1 psychologist. The psychiatrist is in attendance on Tuesdays. The other clinics are staffed by a psychiatrist and a psychologist.

Referrals may be made by private physicians, parents, families, school agencies, school superintendents, Department of Education, all divisions within the Department of Health and Welfare. Application blanks may be obtained from the main office of the Division of Mental Health — State House, Augusta.

Patients are seen by appointment only. Each child must be accompanied by a parent or guardian. Applications should be sent to the Director, Division of Mental Health, Department of Health and Welfare, State House, Augusta.

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Schering 

in rheumatoid arthritis

more potent

than other corticosteroids

lessened incidence

of sodium retention

and potassium depletion

*T.M.

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AUDITOR'S REPORT

JOSEPH STILLMAN
Certified Public Accountant
97a Exchange Street
Portland 3, Maine

June 10, 1955.

MAINE MEDICAL ASSOCIATION,
142 High Street,
Portland 3, Maine.

Gentlemen:

I have examined the accounting records of the Maine Medical Association for the fiscal year ended May 31, 1955, and all related data and information pertinent thereto. I have found the records to be in order and all funds properly accounted for.

In my opinion, the enclosed exhibits, balance sheet, and statement of income and expense, with supporting schedules, present the true financial condition of the Maine Medical Association as of May 31, 1955, and the results of its operation for the fiscal year then ended.

Yours truly,
JOSEPH STILLMAN.

EXHIBIT A
Maine Medical Association
Balance Sheet
As at May 31, 1955

ASSETS	
Cash on Hand and in Banks (See Schedule III)	\$22,004.18
Accounts Receivable:	
Dues	\$1,400.00
Advertising JOURNAL	1,188.06
	<hr/> 2,588.06
Securities (See Schedule VII)	17,102.99
Furnishings and Equipment	2,041.51
Accrued Interest Receivable	206.01
Prepaid Expenses:	
Annual Session	\$300.97
Postage and Mailing	21.55
	<hr/> 322.52
Trust Fund Investments (See Schedule II)	3,805.04
	<hr/>
Total Assets	\$48,070.31
LIABILITIES	
Accounts Payable	\$ 967.25
Due for Social Security and Withholding	119.54
Due American Medical Association for Dues Collected	425.00
Due Spalding Memorial Library at Maine General Hospital	40.00
(Income from Thayer Library Trust)	
Deferred Income:	
Convention Exhibit Space	1,746.00
	<hr/>
Total Liabilities	3,297.79
	<hr/>
Excess of Assets over Liabilities	<u>\$44,772.52</u>
CAPITAL AND FUNDS	
Capital Account (See Schedule I)	\$40,967.48
Trust Funds (See Schedule II)	3,805.04
	<hr/>
Total Capital and Funds	<u>\$44,772.52</u>

EXHIBIT B
Statement of Income and Expense
For the Year Ended May 31, 1955
INCOME

Dues	\$22,737.00
JOURNAL (See Schedule IV)	13,490.34
Annual Session (Exhibits)	2,208.00
Investments (See Schedule V)	748.96
American Medical Association for Collection of Dues	66.95
	<hr/>
Total Income	\$39,251.25

EXPENSE	
Executive Secretary's Office (See Schedule VI)	\$11,169.38
Secretary-Treasurer's Office (See Schedule VII)	5,671.43
JOURNAL (See Schedule IV)	12,359.71
General :	
Annual Session	\$1,991.34
President's Expenses	425.00
Councilors' Expenses	734.38
Medical Advisory Committee (Legal Counsel)	1,000.00
Other Committees	283.94
Delegates—New England Medical Societies	166.67
Delegates—American Medical Association	976.92
Clinical Session	336.87
New England Council Dues	100.00
Woman's Auxiliary	150.00
Annual Rosters	174.00
Nurse's Pamphlets	300.00
	<hr/> 6,639.12
Total Expenses	35,839.64
Net Income for the Period	<hr/> \$3,411.61

SCHEDULE I
Capital Account

For the Year Ended May 31, 1955

Balance, June 1, 1954	\$37,555.87
Additions to Capital:	
Net Income for the year ended May 31, 1955 (Exhibit B)	3,411.61
Total	\$40,967.48
Deductions from Capital:	
None	— 0 —
Balance, May 31, 1955	<hr/> \$40,967.48

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in rheumatoid arthritis

more potent
than other corticosteroids

lessened incidence
of sodium retention
and potassium depletion

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SCHEDULE II
Trust Funds and Trust Fund Investments
May 31, 1955
TRUST FUND INVESTMENTS

Prince A. Morrow Trust:		
36 Shares American Agricultural Chemical Co. (Cost)	\$ 348.00	
Canal National Bank Savings Book No. 3905:		
Balance, June 1, 1954	\$2,299.10	
Add: Dividends Received	135.00	
Interest on Savings	22.94	
	<u>2,457.04</u>	\$2,805.04
Thayer Library Trust:		
Portland Terminal Company — 4% First Mortgage Bond, 1961		1,000.00
Total Trust Fund Investments		<u>\$3,805.04</u>

TRUST FUNDS

Prince A. Morrow Fund:		
Principal	\$ 554.94	
Income	2,250.10	
	<u>\$2,805.04</u>	
Thayer Library Fund:		
Principal		1,000.00
Total Trust Funds		<u>\$3,805.04</u>

SCHEDULE III
Schedule of Cash Receipts and Disbursements
For the Year Ended May 31, 1955

Cash Balance, June 1, 1954	\$19,070.64
Cash Received From:	
State Dues	\$22,671.00
JOURNAL Portion of State Dues	1,374.00
JOURNAL Advertising	11,798.59
JOURNAL Miscellaneous	461.79
Exhibit Space Rentals	2,742.00
Investments	704.61
Thayer Library Trust Investment	40.00
Maine Tuberculosis Association—Annual Session	100.00
Clinical Session Dinner Tickets and Miscellaneous	939.60
Employees for Social Security and Withholding	2,077.51
Miscellaneous (Refunds, Transfers, etc.)	282.68
Members for American Medical Association Dues	12,985.00
Total Cash Received	<u>56,176.78</u>
Total Cash	<u>\$75,247.42</u>
Cash Disbursements:	
Executive Secretary's Office:	
Salaries	\$9,141.39
Travel Expense	563.23
Office Expense	1,364.29
	<u>\$11,068.91</u>
Secretary-Treasurer's Office:	
Salaries	\$4,000.00
Travel Expense	45.85
Office Expense	1,609.18
	<u>5,655.03</u>
JOURNAL:	
Salaries	\$ 500.00
Printing and Plates	11,212.56
Office Expense	767.01
	<u>12,479.57</u>
Social Security and Withholding Taxes	2,333.80
General Expense:	
Annual Session	\$2,349.30
Medical Advisory Committee (Legal Counsel)	1,000.00
President's Expenses	425.00
Woman's Auxiliary	150.00
Miscellaneous (Delegates, Councilors, Committees, Clinical Session, etc.)	3,949.76
	<u>7,874.06</u>

American Medical Association for Members' Dues	12,720.00
Equipment and Furnishings	948.92
Miscellaneous (Refunds, Transfers, etc.)	162.95
Total Cash Disbursements	<u>\$53,243.24</u>
Cash Balance, May 31, 1955	<u>\$22,004.18</u>
Canal Bank — Regular Account	\$19,770.26
Canal Bank — Special Account, American Medical Association Dues	206.12
Maine Savings Bank Book No. 7751	1,602.80
Undeposited Cash — Deposited June 3, 1955	425.00
	<u>\$22,004.18</u>

SCHEDULE IV
Schedule of Journal Income and Expense
For the Year Ended May 31, 1955

INCOME

JOURNAL Portion of State Dues	\$ 1,378.00
Advertising:	
State Journal Advertising Bureau	\$10,620.48
Local Advertising	1,237.57
	<u>11,858.05</u>
Miscellaneous Income and Subscriptions	254.29
Total Income	<u>\$13,490.34</u>

EXPENSE

Salaries:	
Editor	\$ 500.00
Other Expenses:	
Printing and Plates	\$11,176.44
Trucking and Mailing	396.85

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PREDNISONE



in rheumatoid arthritis

more potent

than other corticosteroids

lessened incidence

of sodium retention
and potassium depletion

*T.M.

METICORTEN,* brand of prednisone.

Telephone and Office Expense	166.42
Social Security Tax	10.00
Miscellaneous Expense	110.00
	<hr/>
	11,859.71
Total Expenses	<hr/>
	\$12,359.71

Note: Above items of expense do not include any portion of salary of Secretary-Treasurer, rent and lights since no part of these expenses have been allocated specifically to the JOURNAL.

SCHEDULE V
Schedule of Income from Investments
For the Year Ended May 31, 1955

Income From:	
Interest:	
United States Government Bonds, Series "G"	\$150.00
Portland Terminal Company Bonds	150.00
Province of Nova Scotia Bonds	37.50
Bangor and Aroostook Bonds	45.00
Jacksonville Gas Corporation Bonds	40.00
Maine Savings Bank	44.35
	<hr/>
	\$466.85
Dividends:	
Central Maine Power Co. — Preferred	\$42.00
Consolidated Edison Co. of New York — Preferred	50.00
Chase National Bank	60.80
First National Bank of Boston	57.20
Guaranty Trust Co.	54.75
Telfair Stockton Company, Inc. — Common	6.00
Prudence Bond Corporation	11.36
	<hr/>
	282.11
Total Income from Investments	<hr/>
	\$748.96

SCHEDULE VI
Schedule of Executive Secretary's Office Expense
For the Year Ended May 31, 1955

Salaries:	
Executive Secretary	\$6,775.39
Stenographer	2,366.00
	<hr/>
	\$ 9,141.39
Travel Expense:	
Legislative Session	\$153.23
American Medical Association Meetings	203.34
Other Council and Committee Meetings and Conferences	206.66
	<hr/>
	563.23
Office Expense:	
Rent and Lights	\$466.17
Stationery Supplies and Postage	409.24
Telephone	281.66
Social Security Tax	100.47
Subscriptions, Books, Periodicals	196.47
Miscellaneous Expense	10.75
	<hr/>
	1,464.76
Total Expense	<hr/>
	\$11,169.38

SCHEDULE VII
Schedule of Secretary-Treasurer's Office Expense
For the Year Ended May 31, 1955

Salaries:	
Secretary-Treasurer	\$4,000.00
Travel Expense	45.85
Office Expense:	
Rent and Lights	\$466.17
Stationery, Postage and Office Supplies	477.12
Telephone	292.62
Auditing	250.00
Social Security Tax	68.92

Advertising	30.00	
Miscellaneous	40.75	
		1,625.58
Total Expense		\$5,671.43

SCHEDULE VIII
Schedule of Securities
May 31, 1955

	Face	Cost
Bonds:		
United States Government Bonds, Series "G", Due July 1, 1956	\$4,000.00	\$ 4,000.00
United States Government Bonds, Series "G", Due March 1, 1961	2,000.00	2,000.00
Portland Terminal Company, 5% First Mortgage Bonds, 1961	3,000.00	3,045.00
Province of Nova Scotia, 3¾% Bonds, 1971	1,000.00	995.00
Bangor and Aroostook, 4¼% First Mortgage Bonds, 1976	1,000.00	860.00
Jacksonville Gas Corporation, 4% First Mortgage Bonds, 1969	1,000.00	1,025.00
Stocks:		
12 Shares Central Maine Power Co., 3½% Preferred, \$100 par		948.00
10 Shares Consolidated Edison Co. of New York, Inc., Cumulative Preferred, no par		1,090.00
25 Shares Chase National Bank		1,040.63
22 Shares First National Bank of Boston		1,049.36
15 Shares Guaranty Trust Company of New York, \$20 par		990.00
20 Shares Telfair Stockton & Company, Inc., Common, \$4 par		60.00
2 Shares Prudence Bond Corporation		— 0 —
Total Securities		\$17,102.99

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BLENDED SCOTCH WHISKY

CANADA DRY GINGER ALE, Inc., New York, N. Y., Sole Importer

Lobotomy Program Follow-Up Report *Continued from page 200*

Patient No. 3: This patient with a 30-year history of recurrent episodes of manic depressive psychosis was considered to have marked improvement in 1951. His family situation has been such that he has not been able to leave the hospital for any protracted period of time. On one leave of absence it is reported by his wife: "He tended to sit around and read just as he did before he became disturbed and had to be hospitalized. He did not care to see old friends but appeared to enjoy meeting new ones." Since the lobotomy, done in June of 1947, he has had no manic or depressive episodes. He is still considered to show marked improvement.

Patient No. 4: Condition considered to show no improvement in 1951. After this showed, further regression and electroshock therapy was necessary. He also had a series of grand mal seizures which were controlled by 300 mgm. of mesantoin daily. Over a prolonged period of time patient showed gradual improvement without any further electroshock therapy. He became friendly and conversed in a fairly relevant and coherent fashion with personnel. He was given ground privileges early in 1954. In May of 1955, he became negativistic and uncoöperative, and privileges were revoked. At the present time he is considered to show slight improvement.

REFERENCES

1. Zeltzman, Israel, M. D.: Report on Lobotomy Program. *Maine Medical Journal*, July, 1951.
2. Fred A. Mettler and Associates: Factors in the Pre-operative Situation of Schizophrenics, Considered to be of Significance in Influencing Outcome Following Psychosurgery. *Psychiatric Quarterly*, October, 1954.
3. Freeman, Walter: Psychosurgery, Progress in Neurology and Psychiatry. Spiegel, Editor, Volume VIII, 1953.
4. Greenblatt, Robertson and Solomon: Five-Year Follow-Up in One Hundred Cases of Bilateral Prefrontal Lobotomy. *Journal of the American Medical Association*, Volume 151, No. 3, Pages 200-202.

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No. 8

ACCIDENTAL VACCINIA*

HARVEY B. ANSELL, M. D.,** Portland, Maine

Most physicians are extremely careful not to vaccinate a child who has Infantile eczema or any other skin eruption because of the possible complication of Eczema vaccinatum. Eczema vaccinatum or accidental vaccinations can occur in persons with skin lesions following contact with someone who had been recently vaccinated. After vaccinating a child it is important to issue a warning to other members of the family with skin lesions who had never been vaccinated or who had not been recently vaccinated that they should avoid contact with the recently vaccinated individual because of the danger of Eczema vaccinatum or accidental vaccinations.

Eczema vaccinatum, a distinct clinical entity, is a generalized infection of the skin caused by the virus of vaccinia. It apparently results from the implantation of the virus on previously disturbed skin, most commonly Infantile eczema or Neurodermatitis disseminata. According to Blank and Rake¹ the spread may occur either by surface inoculation or through the blood stream. The main features of Eczema vaccinatum are a pre-existing acute or chronic dermatosis, a susceptibility to the vaccinia virus, a contact with the virus, the subsequent varioliform eruption and the following immunity to the virus of vaccinia. Often there are cervical adenopathy, fever and prostration, sometimes ending in death.² In the differential diagnosis one should consider Disseminated

herpes simplex (Eczema herpeticum), Dermatitis venenata, generalized Herpes zoster, Chickenpox, Smallpox, Pustular syphiloderm and a Bromide or Iodide eruption.

Multiple vaccinations may occur from accidental inoculation in a susceptible person following contact with a recently vaccinated individual.

Autovaccination occurs fairly frequently in children who scratch the site of vaccination and inoculate other areas. Autovaccinations mature and terminate at about the same time as the original vaccination.³

CASE REPORTS

Case 1) A 31-year-old white female, whom I was asked to see in consultation, complained of an itchy, painful rash of five days in duration. The eruption began on the left side of her neck and clavicular area. Two days later it spread to the face, and the clavicular glands became enlarged. The day before I first saw her the rash became more intense, very itchy, tender and painful. It extended to involve the eyelids, back of the neck and the scalp.

There was a history of Eczema since one week of age, Asthma since the age of 25 years and Hayfever since the age of 29 years. She had had attacks of Urticaria on many occasions.

Physical examination revealed a well developed and well nourished adult female who appeared to be very ill. The temperature was 100.6 F. The face was markedly edematous, and the eyelids were so swollen that the orbits could be observed only by forcing open the eyelids. There was an erythematous, papulo-

* From the Department of Dermatology, Maine General Hospital.

** Clinical Instructor in Dermatology and Syphilology, Tufts University School of Medicine.

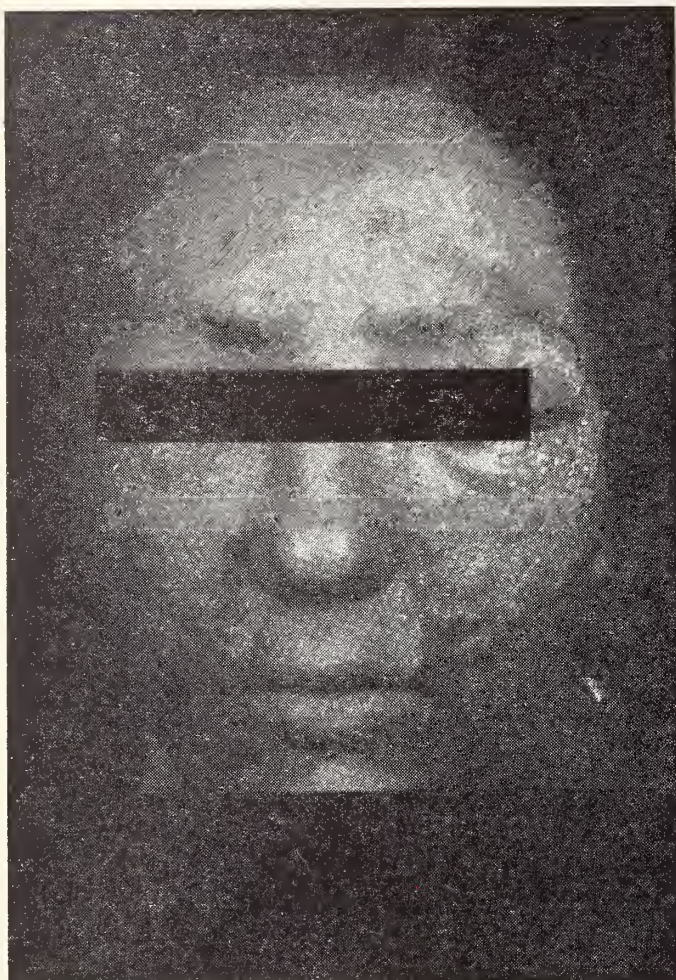


Fig. 1 (Case 1). Eczema vaccinatum. Appearance of the patient 6 days after onset of illness. Note the marked edema of face and eyelids.



Fig. 2 (Case 1). Close-up 6th day of illness. Note definite umbilication especially of upper eyelid.

vesicular and pustular eruption involving the face, scalp, neck, breasts, antecubital and popliteal areas and several fingers. Definite tension was noted in the vesicles, and slight delling was present in a few pustules.

On further questioning the patient stated that her son had been vaccinated about two weeks before the onset of her illness. The patient herself had been vaccinated at the age of six years.

A diagnosis of Eczema vaccinatum was made, and in addition to local measures, Aureomycin by mouth was prescribed to combat secondary bacterial infection, and ACTH was ordered in an attempt to minimize scarring.

Laboratory findings on the day of admission were—RBC 4.2 million; Hb. 86%; Hematocrit 42; WBC 7,400; Polys. segmented 89%; Lymphs. 9%; Eosinophils 2%; Sed. rate 40 mm./hr.; Urine negative. A Tzanck test⁴ failed to reveal the presence of the giant epithelial cells that are usually found in infections of Herpes simplex, Herpes zoster and Chickenpox. Unfortunately, further virus studies could not be done.

The day after I first saw her the pustulation increased, and the umbilication became more pro-

nounced. The first photographs were taken at that time (Figs. 1 and 2). There was a definite resemblance to Smallpox, one of the conditions considered in the differential diagnosis. The eruption involuted slowly, and three days later (Fig. 3) marked crusting was present, and umbilication was even more pronounced.

The patient made an uneventful recovery, and, fortunately, there was practically no residual scarring.

Case 2) A 30-year-old white housewife who consulted me because of an eruption involving her right ear, arm, forearm and hand of several days in duration. There was a history of Eczema since infancy. However, there was a complete remission between the ages of 13 years and 20 years.

Examination revealed vesiculo-pustular, crusted, indurated and umbilicated lesions surrounded by erythema distributed as follows: one on the right ear lobe, three on the anterior surface of the right arm, two on the right forearm, one on the dorsum of the right wrist, one on the right thumb and one on the dorsal surface of the right middle finger (Fig. 4). There was tenderness and swelling of the right pos-



Fig. 3 (Case 1). Edema subsiding. Umbilicated pustules on face and neck. Note crust formation on cheeks and about mouth.

terior auricular nodes and the right axillary nodes. Temperature was 99.4 F.

On further questioning the patient stated that her baby had been vaccinated about 11 days prior to the onset of the eruption. The patient had never been vaccinated previously.

A diagnosis of Multiple accidental vaccinations was made, and antibiotics were prescribed for both oral and local use to combat secondary bacterial infection. The patient made an uneventful recovery.

Case 3) A 4-year-old white boy was seen by me because of an eruption involving his lip and left elbow. On February 27, 1955, he had sustained an abrasion of his left elbow. The following day, February 28, 1955, he was vaccinated in the left deltoid area. On March 7, 1955, he fell and injured his lower lip, and two days later his mother noticed the development of a lesion on the lip.

Examination on March 10, 1955, revealed typical primary vaccination reactions present on the lower lip (Fig. 5), left elbow (Fig. 6) and the left deltoid area (Fig. 7).

Diagnoses of vaccination of the left arm and auto-



Fig. 4 (Case 2). Accidental vaccination, finger.

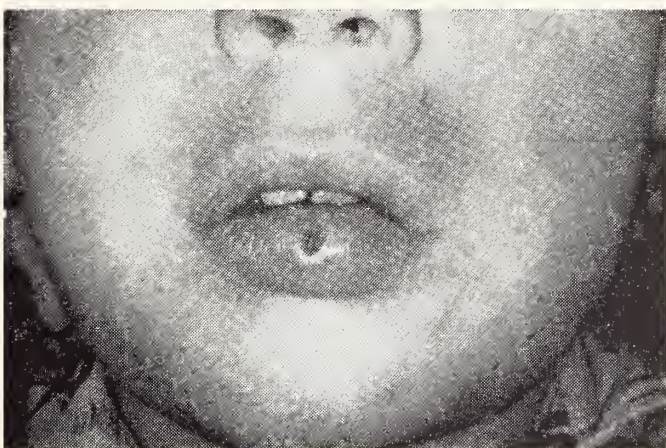


Fig. 5 (Case 3). Accidental vaccination, lip.

vaccinations of the left elbow and lower lip were made. An antibiotic ointment was prescribed.

TREATMENT

There is no specific treatment known for the treatment of Eczema vaccinatum. The broad spectrum antibiotics are useful in controlling secondary bacterial infection. Aureomycin apparently was found effective in controlling secondary infection in the cases of Perry and Martineau⁵ and that of King and Forrest⁶ and Chloramphenicol in the case of Fasal.⁷

COMMENT

Because of the symmetry and the extensive extent of the eruption in Case No. 1, I believe that it most likely represents an example of hematogenous spread of the vaccinia virus. Case No. 2 is an example of surface inoculation in a susceptible individual, and Case No. 3 may be considered surface inoculation in a vaccinated individual who had sustained abrasions both prior to and subsequent to vaccination.

Eczema herpeticum (generalized Herpes simplex) was considered in the differential diagnosis in Case No. 1, but because of the large, tense vesicles, marked umbilication, lack of definite grouping, a definite his-

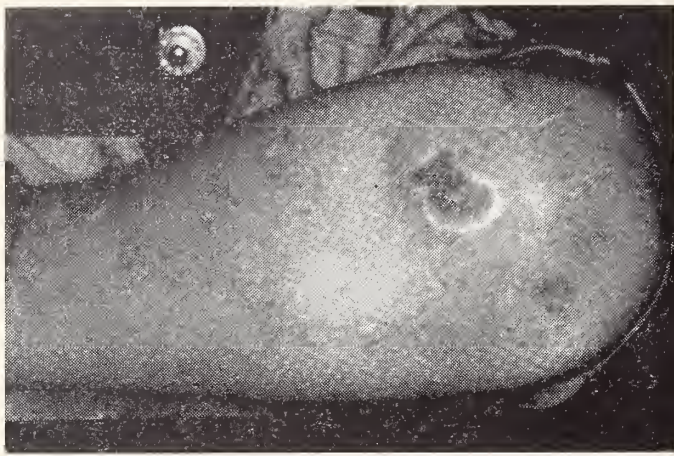


Fig. 6 (Case 3). Accidental vaccination, left elbow.



Fig. 7 (Case 3). Primary vaccination, left arm.

tory of contact and the absence of giant epithelial cells in the Tzanck smear, I favored the diagnosis of Eczema vaccinatum. Although it has been frequently stated that Eczema vaccinatum and Generalized herpes simplex are clinically indistinguishable, I agree with those who believe that they can be differentiated clinically in the majority of cases.

A history of exposure to vaccinia virus may not be obtained until the patient or parents have been repeatedly and carefully questioned. In one case reported⁸ the affected child had been left in the care of a woman whose child had had a recent vaccination.

Occlusive dressings such as employed by Dewar and Finn⁹ during the 1950 Smallpox outbreak in Glasgo may have prevented the surface inoculations in Cases 2 and 3, but Wisner¹⁰ found an occlusive dressing ineffective in preventing a boy with eczema from contracting Eczema vaccinatum following contact with his older recently vaccinated brother.

SUMMARY

Accidental vaccinia in susceptible individuals is reported illustrating 1. hematogenous spread, 2. surface inoculation, and 3. autovaccination.

Individuals with skin lesions who have never been vaccinated or who have not been recently vaccinated should avoid contact with recently vaccinated people.

REFERENCES

1. Blank, H., and Rake, G.: *Viral and Rickettsial Disease of the Skin, Eye, and Mucous Membranes of Man*; Little, Brown and Co., 1955.
2. Andrews, G. C.: *Diseases of the Skin*, ed. 4, W. B. Saunders Co., 1954.
3. Sobel, N., in *Skin Diseases in Children* (MacKee, G. M., and Cipollaro), ed. 2, Paul B. Hoeber, Inc., 1946.
4. Tzanck, A., and Melki, in *Modern Trends in Dermatology* (second series), Edited by MacKenna, R. M. B., Paul B. Hoeber, Inc., 1954.
5. Perry, F. B., and Martineau, P. C.: Eczema Vaccinatum, *J. A. M. A.*, 141:657 (Nov. 5), 1949.
6. King, J. H., Jr., and Forrest, R. L.: Vaccinia of the Eyelids, *J. A. M. A.*, 153:31 (Sept. 5), 1953.
7. Fasal, P.: Eczema Vaccinatum Successfully Treated with Chloramphenicol (Chloromycetin), *J. A. M. A.*, 144:759 (Oct. 28), 1950.
8. Tedder, J. W.: Eczema Vaccinatum, *Arch. Dermat. and Syph.*, 34:1008 (Dec.), 1936.
9. Dewar, W. A., and Finn, O. A.: Abst. in *J. A. M. A.*, 156:1117 (Nov. 13), 1954.
10. Wisner, F. B.: In *Queries and Minor Notes*, *J. A. M. A.*, 154:462 (Jan. 30), 1954.

BENIGN LYMPHOID TUMORS OF THE RECTUM

GEORGE F. SAGER, M. D.,* and JOSEPH E. PORTER, M. D.**

Benign lymphoid polyps of the rectum were first described by Shattuck¹² in 1890 from England. Several articles from British and European authors followed, but not until 1940 did the subject appear in the American literature.⁵ In the most recent article by Hayes and Burr,⁶ the authors tabulate 206 cases from the literature, one of which they reported in 1940. They add 21 more cases from their own experience over a twelve-year period, bringing the total to 227. This does not reflect its incidence among pathological specimens, since recent reports give benign lymphoid tumors as constituting from 3 to 14.6% of all tumors of the ano-rectal region. The higher figure is from the Army Institute of Pathology³ and is affected by the relatively younger age of the patients. The Pathology Department of the Maine General Hospital examined 342 tumors of the rectum and anus in the five-year period from February, 1947, to February, 1952. Eleven of these were benign lymphoid tumors, making an incidence of about 3%. Lymphosarcoma of the ano-rectal region was seen once during this period. It is indeed surprising to find this subject omitted from most textbooks of pathology.

TERMINOLOGY

The terminology of this entity has been inconsistent. Other common terms are: benign lymphoma, lymphadenoid polyp, and lymphadenoma. The more recent literature favors benign lymphoma. The word "lymphoma" has a malignant connotation to most readers, and the process herein described is entirely benign. The current "Standard Nomenclature of Disease and Operations," 4th edition, 1952, classifies benign lymphoma and giant follicular lymphoma together as the same disease. Because of this we believe benign lymphoid tumor, or polyp, to be the preferred diagnostic term. The "Manual of Tumor Nomenclature" by the American Cancer Society, 1951, classifies these lesions as benign lymphoid polyps (rectum).

ETIOLOGY

Submucosal lymph follicles are described by Dukes and Bussey¹ as being present throughout the normal colon to the extent of about 3 per sq. cm. of surface area, and being a little more numerous in the rectum. In the same article the authors describe these lymphoid follicles as being "situated in the submucous coat of the bowel, but occasionally some are found within the two layers of the muscularis mucosae.

Serial sections proved that the cells are mostly collected in flask-shaped masses, the narrow neck of the flask passing through a gap in the muscularis mucosae." This view is accepted by most authors. However, the two leading textbooks of histology^{9, 13} show very similar illustrations, but state that these solitary lymph nodules are present in the mucosa, and push down through the muscularis mucosae into the submucosa. In trying to determine for ourselves the original location of these lymph follicles, several sections of normal colon and rectum were studied. Rarely follicles were found completely within the mucosa or submucosa. By far the greater number of follicles were found to extend through the muscularis mucosae. Whether they originated in the submucosa and extended into the mucosa, or vice versa, could not be determined. Suggestive evidence could be found to support either contention. Hence no conclusive answer to this academic question was obtained. However, there seems to be no doubt that benign lymphoid tumors arise from these solitary lymph follicles. Whether the impetus is infectious, neoplastic, or traumatic, is unknown.

CLINICAL FINDINGS

Benign lymphoid tumors of the rectum are found in both sexes and in all ages. Cases reported from civilian hospitals have a higher incidence in females. We have found this to be true in our series, with 9 of our 11 patients being females. They are usually solitary polyps, but may be multiple, as in two of our patients. Usually asymptomatic, they are found on routine rectal examination, or during the course of an examination for other rectal conditions, such as hemorrhoids, fissures, etc. At times they may be responsible for such symptoms as tenesmus, painful defecation, rectal bleeding, and the actual prolapse of a mass. Symptoms referable to the polyp were found in 3 of our 11 cases. Two patients had bleeding from the polyp, and one patient had a large polyp which prolapsed through the anus on a long pedicle. Other authors^{10, 14} have emphasized the fact that these lymphoid polyps are frequently mistaken for thrombosed hemorrhoids, the correct diagnosis being made only after microscopic examination. We did not encounter this in our series. They are usually a single lesion, but may be multiple, as in two of our patients.

Most of these polyps are well within the reach of even the shortest examining finger. In all but one of our patients, the lesions were within 5 cm. of the mucocutaneous line. They resemble adenomatous polyps grossly, except that usually the lymphoid polyps have a broader base, are firmer, and have less tend-

* Department of Surgery, Maine General Hospital, Portland, Maine.

** Chief of the Department of Pathology, Maine General Hospital, Portland, Maine.

ency to ulcerate. In fact, it is rare to find ulceration of the surface epithelium, even though bleeding is not an uncommon symptom. At times they may occur as nodules beneath the mucosa of the rectum. These submucous nodules are firm, but not hard, are not tender, and move freely beneath the mucosa. This mobility makes them difficult to grasp with biopsy forceps. Before they have grown into the lumen of the bowel enough to produce a polyp, they may be difficult to see with an anoscope or sigmoidoscope, but are easily felt with the examining finger. These areas of submucosal lymphoid hyperplasia probably represent the transition stage between the normal microscopic follicles and the lymphoid masses which have pushed far enough into the lumen to become polyps.

MICROSCOPIC FEATURES

These lesions appear to be collections of lymph follicles covered by a normal mucous membrane. (Fig. 1) The mucous membrane covering the growth is usually intact, but has been thinned out by



Fig. 1—Low power photomicrograph of a section from a typical benign lymphoid polyp of the rectum. The normal but flattened rectal mucosa can be seen covering the outside of the polyp. The center which makes up the mass of the polyp is composed of lymph follicles. — X32

the pressure of the slowly-expanding lesion from below. Closer examination reveals that the lesion differs from normal nodes by the absence of a capsule, marginal sinuses, and medullary cords. This is not surprising, since they arise from lymphoid follicles, which normally lack these structures. Another striking feature is the large size of the follicles, with germinal centers which may be quite irregular and bizarre in shape. Mitotic activity seems to vary, with some polyps showing few mitoses, limited to germinal centers, while others show considerable mitotic activity, within the germinal centers, and occasional mitoses outside the follicle.

Another common finding is phagocytosis by reticulum cells in the germinal centers. Phagocytosis is rarely if ever found in malignant, lymphoid tumors.

Most polyps show evidence of small hemorrhages within the follicles, and hemosiderin deposits, found mostly outside the follicle.

TREATMENT AND COURSE

We have no good proof of what happens to these lesions if left alone. This would necessitate biopsy without removal, and then long-term follow-up. Regardless of what the treatment has been, whether it was excision, fulguration, or X-ray therapy, the results universally are satisfactory. A recurrence or malignant transformation has never been reported. All of our patients in whom adequate follow-up was possible have revealed no evidence of recurrence. This brings up the question of whether any treatment is necessary. If the polyp or nodule is asymptomatic and you are certain of the diagnosis, it probably needs no treatment as long as it remains unchanged. Some authors give the impression that the diagnosis is not difficult clinically. But these authors give no suggestions as to how to differentiate this lesion from a carcinoid tumor of the rectum, which may present a very similar clinical picture, but requires more aggressive treatment. It therefore seems reasonable to biopsy or excise these lesions in almost all instances.

SUMMARY

1. The clinical and pathological characteristics of benign lymphoid tumors of the rectum are presented. Eleven additional cases are added to the literature.
2. The tumors arise from the normal lymph follicles found in the mucosa, and submucosa of the colon and rectum.
3. They are frequently asymptomatic, but may give symptoms of pain, bleeding, or prolapse of a mass.
4. Microscopically they are composed of masses of large lymph follicles, covered by a thinned-out rectal or anal mucosa.
5. Simple excision or biopsy and fulguration is the treatment of choice.
6. Recurrence or malignant change following treatment is unreported.

BIBLIOGRAPHY

1. Dukes, C., and Bussy, H. J. R.: The number of lymphoid follicles of the human large intestine. *Jour. Path. and Bact.*, 29:111-116, 1926.
2. Dukes, C.: Lymphoma of the rectum. *Proc. Roy. Soc. Med.*, 27:926-927, 1934.
3. Ehrlich, J. C., and Hunter, O. B., Jr.: Tumors of the gastrointestinal tract: A survey of 813 in persons of military age during World War II. *Surg., Gynec. and Obst.*, 85:98-106, 1947.
4. Greenwald, P.: Abnormal accumulations of lymph follicles in the digestive tract. *Am. J. Med. Sc.*, 203:823-829, 1942.
5. Hayes, H. T., Burr, H. B., and Priest, L. T.: Lymphoid tumors of the colon and rectum. *Surgery*, 7:540-545, 1940.

Continued on page 248

RADIOTHERAPY IN UTERINE CANCER

EBEN T. BENNET, M. D., Portland, Maine

There is now in use at the Maine General Hospital, a Stockholm type of radiotherapy program for carcinoma of the uterus. Although essentially this same technique has been used in Sweden for 25 or 30 years with modifications, it is relatively new in this country.

The Swedish method was chosen for the following reasons:

1. It consistently offered one of the highest cure rates reported with radiation therapy.
2. It has consistently had one of the lowest injury rates reported.

Among the chief tenets of the Stockholm method:

1. A basic belief that cure depends on the host reaction, rather than the delivery of a cancericidal dose to each and every tumor cell.
2. The avoidance of injury to the patient.
3. Complete individualization of dosage.
4. Placing all facets of therapy in the hands of one group, so that experience may be better utilized.
5. Meticulous preparation of the patient for treatment.
6. Careful maintenance of the patient who is receiving therapy.

DOSAGE PHILOSOPHY

A great deal of study has been done on the exact amount of radiation delivered to various points in the pelvis during all types of radium therapy. The meaninglessness of dosage expressed in terms of milligram-hours has been emphasized by many observers. Distance from the source, strength of the source, and duration of the exposure, are the factors governing the dosage, and milligram-hours measures only the last two. The mere use of the term "gamma roentgen," as a measure of radiation, however, is equally meaningless, because each and every point in the pelvis receives a different number of gamma roentgens, depending on its position relative to the source of radiation. Point A and Point B have been set up as points of reference for establishment of adequate dosage, whereby an adequate dosage is one which delivers so many gamma roentgens to Point A. We feel, however, that this is likely to be fallacious, because Point A and Point B vary tremendously, not only from patient to patient with different sizes and shapes of vagina and pelvis, but even in a single patient, with change of position. This fact, and all the facts governing our dosage philosophy, have been established by the use of condenser chambers which en-

able the measurement of the dosage being received at a given point, at a given time. It has been found that the largest safe dose which can be given without producing injury to the rectum is usually adequate for cure. Therefore, this is the amount which is typically given.

Some feel that a cancericidal dose of 5000 r to 7000 r must be delivered to each tumor cell to effect a cure. The Stockholm results are at variance with this. Typically, the Stockholm method uses comparatively small doses. It has never been proved that a dose adequate to control a tumor is the same for its various parts.

Possibility of a cure is based on the dosage delivered, the patient's general condition, the degree of malignancy and the host's inherent resistance. There is much that we do not know about the last two factors. Until we learn more, it is important not to destroy the host's natural resistance by abusing normal tissue, which may occur with over-dosage.

Another important point in the Swedish system is that radium is given before X-ray in the typical case. If X-ray must be started first, radium is given as soon as possible. The reasons for not giving the full course of X-ray first are:

1. Prolonged X-ray therapy may cause a biologic effect which necessitates a recovery time.
2. Changes in the connective tissue and blood supply due to X-ray may reduce the effect of the radium.
3. X-ray may cause shrinking of the vagina and make radium application technically difficult.

AVOIDANCE OF INJURY

The avoidance of injury to the patient is stressed. This is a bugaboo of radiation therapy and even more a bugaboo of surgical therapy. The limiting point for radiation is the rectal mucosa in the area just below the cervix. The bladder is a little more resistant. The vaginal mucosa and uterus have a great deal of resistance to radiation. The amount given, and the arrangement of the applicators are fundamentally planned to avoid injuries.

In 2,756 patients treated in Stockholm, 1936 through 1945, there were only nine recto-vaginal fistulae (0.3%) and only seven vesico-vaginal fistulae (0.25%). There were no injuries to the skin, ureters, or bowel other than rectum. No colostomy had to be done for any case during this time.

INDIVIDUALIZATION OF DOSAGE

This is a cardinal point in the Swedish system. Size, nature, and location of the tumor, patient's

*From the Department of Gynecology, Maine General Hospital.

general condition, age, anemia and pelvic anatomy are some of the factors governing dosage.

Our intra-uterine applicators are of such a size that the deeper the uterus, the longer the applicator used. They are plastic tubes containing two to five sources of radium. Our contra-cervical plaques are made of rubber, and will hold four to twenty-four sources of radium. The size of these, likewise, varies directly with the width and depth of the vagina. Dosage curves show that in typical cases, a dosage of the same magnitude can be delivered to each patient, whatever the uterine and vaginal size, by using the size of applicator which fits the uterus and vagina. Altering the strength and location of the sources in these applicators, and the duration of treatment, allows a very large individual variation in dosage.

DETAILS OF TECHNIQUE

It is an integral part of this program that patients be evaluated, prepared, treated and followed by one group of observers, in order that judgment and experience may be utilized and accumulated. Therefore, patients who have uterine cancer in which radiotherapy is indicated, come under the jurisdiction of the radiotherapy group. This group is composed of men specifically appointed by the heads of the Gynecology and Radiology services, and, at present, comprises one person from each Service. The radiotherapy group will then examine such patients and plan treatment. After the completion of radiotherapy, patients will be followed in the Tumor Clinic by the same observers who have planned and carried out treatment.

A fundamental tenet of the Stockholm system is the careful preparation of patients for radium, somewhat akin to preparation for major surgery. If the patient is in optimal condition and afebrile, results seem to be better. Hemoglobin levels are kept or made high by liberal use of iron and, if necessary, transfusions. Supplementary vitamins and a high protein diet are routine. Work-up consists of CBC, catheter urine, blood urea nitrogen and IV pyelogram. Cystoscopic inspection of the bladder is desirable in cases which are beyond League of Nations Stage I. Sigmoidoscopy is desirable in advanced cases.

RADIUM APPLICATIONS

Radium applications are usually done under pentothal anesthesia. Before the patient is cleaned and draped, she is examined carefully under anesthesia—this is the definitive examination, at which staging of the patient is decided. (If the patient receives X-ray therapy first, the definitive examination is carried out on the ward before X-ray is begun.) The uterus is sounded and the size of the vagina measured to ascertain which size applicators to use. The intra-uterine radium is inserted and the contra-cervical

plaque is placed. It should be noted that the intra-uterine applicator is pushed up to the top of the fundus. No radium is applied in the lowest 2 cm. of the cervical canal. (This is to avoid too great a dosage to the rectal mucosa from cross fire.) The vaginal radium is placed as far laterally into the fornices as possible. The vagina is carefully packed. An indwelling catheter is inserted. AP and lateral films are routinely taken to check the position of the application. A diagram showing the extent of the lesion is made at this time and attached to the chart. A record sheet is being made up which will have this diagram on it, plus a summary of treatment and course; this will be placed on the patient's Tumor Clinic Chart following discharge to facilitate follow-up.

Typically, the radium is left in place for approximately 36 hours or a planned variation thereof. It is removed on the examining table without anesthesia. Patients are discharged the following day or as soon as feasible. The dosage of radium is planned chiefly to be within the safe limit with reference to the rectal mucosa just below the cervix, this being the area most susceptible to injury. X-ray therapy, commenced two weeks after the second radium application, typically consists of about 3000 roentgens to each of four portals. Perineal ports are occasionally used in suitable cases. In large or advanced or infected lesions, X-ray therapy may be given prior to radium. No matter what the individualization of dosage in a given case, we try to complete therapy within a three-month period.

Patients are followed monthly for three months after completion of therapy; then every three months until one year has elapsed after treatment. They are then seen every six months until five years after therapy, and then once yearly indefinitely.

RESULTS OF TREATMENT

First, it should be stressed that all statistical results are quite susceptible to misrepresentation. In reporting results, it is very easy to include a group of favorable cases and exclude certain unfavorable cases. This can be done without its being apparent to those hearing the results. In other words one can prove almost anything, statistically, by proper selection of cases.

Roughly stated, the five-year cure rates at the Radiumhemmet are in the neighborhood of:

Stage I	75%
Stage II	50%
Stage III	25%
Stage IV	8-10%
Overall	43.5%

The figures for injuries have already been quoted. Incidentally, the cure rate for adenocarcinoma of the cervix is essentially as good as that for epidermoid carcinoma.

RADIATION VERSUS SURGERY

This is not the place to adequately discuss this point. We wish only to emphasize one aspect of such a comparison—namely, the importance of case selection.

In most series the cases chosen for surgery have been the most favorable cases. There is quite a range in Stage I cervical cancer, from microscopic invasion to large fungating growths. There is also a wide range in Stage II and Stage III lesions. It should be readily apparent that it is fallacious to compare a series of favorable cases in good general condition with a series of unselected cases in all kinds of conditions.

Without going into boring statistics, we should like to quote a table from Kottmeier's book on *Carcinoma of the Female Genitalia*. In it, he has compared the results of two series of surgically treated cases with his own results when his cases were selected on the same criteria as the surgical ones.

RADIATION VERSUS SURGERY			
		Stage I	Stage II
Meigs			
	(57 cases)	80.7%	60.7%
Surgery—			
Morton			
	(73 cases)	71.2%	33.3%
Radiation—			
Radiumhemmet			
	(223 cases)	80.7%	75.2%

This table carries most of the ammunition needed for such a discussion. In comparable cases, radium yields results as good as those of surgery; also radiotherapy is far less traumatic and is associated with fewer injuries.

These figures deal with the results when comparing the best of surgical therapy with the best of radiotherapy. If the comparison were between mediocre surgery and mediocre radiotherapy, most observers agree that the balance would be swung even more in favor of radiotherapy.

CA OF THE FUNDUS

The great argument in this disease is what constitutes the best treatment — hysterectomy alone, or radium plus hysterectomy. The commonest treatment in this geographical area has been hysterectomy alone. It is hard to prove concretely that radium plus hysterectomy is better treatment, but we believe that it is. The use of radium tends to prevent vaginal recurrences after surgery. Statistical reports are difficult to compare. However, two statements can fairly be made:

1. The highest cure rates in the literature are obtained with radium plus hysterectomy.
2. The overwhelming bulk of gynecological centers where this matter has been carefully studied are of

the opinion that preoperative radium increases the cure rate materially.

In Sweden, cancer of the body of the uterus is treated primarily by radium. They use a packing technique, packing the uterine cavity tightly with ten to twenty small radium sources. They pack the uterus twice with a 3-week interval—the dosage is 2110 gamma r at a distance of 15 mm. from the nearest irradiator. Then, if bleeding or uterine enlargement is noted, indicating a recurrence, a hysterectomy is done.

Of a total of 708 patients examined in Sweden, 1936-1945, the absolute 5-year recovery rate was 60.2%. Of 90 patients operated upon for recurrence, the 5-year rate was 62%.

Kottmeier quotes a number of papers from this country, giving 5-year cure rates of from 50-60%. He, therefore, claims with some justification, that his results indicate the pre-eminent place of radiotherapy in carcinoma of the corpus.

Many series have been reported in the literature in this country, and the cure rate for 5 years has run up as high as 85% (Scheffey). Unfortunately, it is sometimes difficult to tell how highly corrected these series are statistically. The Swedish series contains every patient seen, regardless of age, condition, stage of tumor, and regardless of whether treatment was even given or not. In the reports from this country, the highest cure rates have almost invariably been in cases where radium was inserted in the uterus, followed by hysterectomy.

In the last two years there has been a tremendous swing all across the country away from the tandem type of preoperative radium and toward the packing type.

Our own plan in carcinoma of the fundus is to give preoperative radium by the packing technique, using only one application followed by hysterectomy. The uterine cavity is packed with 5 mg. sources of radium. At present we follow the packing directly by hysterectomy. In this way, we feel that we get the maximum benefits of both methods of treatment.

It would seem a fair statement that the addition of radium packing prior to hysterectomy, should add 10 to 15 per cent to the cure rate. This would appear to be well worth the extra time and trouble involved.

CONCLUSIONS

We have presented a brief summary of the current regime for the radiotherapy of uterine cancer at the Maine General Hospital. This program was instituted during 1954 and hence it is too early to draw any conclusions as to its efficacy in our hands. It is hoped that by use of this type of therapy, plus close attention to each individual patient and careful consideration of our over-all results, we may achieve a satisfactory approach to the problem of cancer of the uterus. Results so far have been very satisfactory, and it would appear that this regime should be quite satisfactory.

STATE RESOURCES FOR MEDICAL AND SOCIAL PROBLEMS

EDWARD J. McGEACHEY*

This article is written in the hope that a reference might be given to physicians throughout the State to assist them with unusual health and social situations that might confront them. Obviously it will be impossible to describe all of the services that may be available or to go into detail on any specific service. It is hoped, however, that enough information will be given so that the physician may find the help he needs either from the agencies listed or by being referred by these agencies to the proper source of assistance.

Health and Welfare resources are divided into so-called "private" and "public" agencies. The private agency is one supported by private donations or endowments—public agencies on the other hand, are those that are supported by tax funds.

The tax supported services with few exceptions fall under the administration of the Department of Health and Welfare, State of Maine. These services are manifold and cover most problems that confront the citizens of Maine. A few words are in order to clarify these services. The programs most widely known are those that fall under the Division of Public Assistance. These are primarily relief and are concerned with subsistence payments for eligible persons. The programs are: Old Age Assistance (OAA), Aid to Dependent Children (ADC), Aid to the Blind (AB), and a new category called Aid to the Totally and Permanently Disabled. Since patients may come to your attention who may be eligible for one of these forms of help they should be mentioned. Although these programs are complicated in their administration, there are thirteen offices available throughout the State to answer questions about the eligibility requirements. It is worthwhile noting that in the case of *OAA*, a man may have his Social Security pension supplemented by *OAA* if his needs are greater due to illness necessitating special care or nursing home.

An interesting point of *ADC* is that a grant may be made to a wife of a disabled wage earner for care of his children if the man is totally disabled. Another interesting point is that if a man should lose his wife and choose to remain home to care for his children a grant may be made if other eligibility requirements are met.

Aid to the Blind and Aid to the Disabled are dependent solely upon medical evaluation. Again, eligibility requirements are too complicated to cover in this article. It should be noted that the important factor in the Disabled program is the word *permanently*.

Although none of these programs have any provision in their budget for medical care and the grant is very inadequate, there has been an additional medical provision made. As of July 1, 1955, each recipient of assistance under the above programs will be eligible for a total of forty-five days hospitalization at a per diem rate established by the Department of Health and Welfare, under the care of their own physician.

Two programs that are confused with the above are the Services for the Blind and the Division of Vocational Rehabilitation.

Services for the Blind has been established as a diagnostic preventative and rehabilitation service. A person does not have to be blind in order to be eligible. They need only to be in danger of losing their sight. This factor to me seems most worthy of note. Additional services are available for the training and rehabilitation of those already blinded.

Under the Department of Education fall two Divisions of which the physician should have knowledge. The first is Special Education for Physically Handicapped Children which provides help for children unable to benefit from regular schools although mentally normal. A medical report is necessary and must state that the child will need these services for longer than six weeks. There are many services available, among them home instruction, lip reading, hearing correction and therapy, subsidy to children sent out of State to approved programs and many others.

The Division of Vocational Rehabilitation is available to Maine citizens of employable age who are suffering from a physical handicap that makes it impossible for them to further pursue their usual work. Under some circumstances help is available with counselling, retraining, prosthetic appliances, job finding and other help.

Again returning to the Department of Health and Welfare, we have the Division of Maternal and Child Health commonly referred to as Crippled Children's Services. This Agency as is well known, conducts pediatric, orthopedic and cardiac clinics throughout the State. It is not so commonly known that this Agency is interested in all congenital defects where rehabilitation or correction is possible and that work is done on cleft palates, hairlips and other crippling conditions.

Another service that should be made known is the Division of Mental Health which provides psychiatric consultation. Although there is no restriction to children, it appears that this service is utilized most frequently for the diagnosis of emotional disturbances in children. With the limited psychiatric facili-

* Director, Out-patient Department and Social Service Department of the Maine General Hospital, Portland, Maine.

ties available outside of institutions this would appear to be a most valuable service.

Before we leave the services most readily identified with the Department of Health, we must include the Public Health Nursing Services. These nurses cover the State in those areas not covered by local nursing groups. We, in the hospital, find them indispensable in evaluating home conditions, instructing patients in health techniques, and generally following the patient to assure his continuing care.

Under the Bureau of Social Welfare in addition to the programs mentioned earlier under Public Assistance we have one other Division and that is called Child Welfare.

This service can be of great assistance to the physician who is presented with the problem of an unwed mother or a question of adoption. Also the need might arise for an evaluation of home conditions for a possible neglect complaint or finally the need for foster home placement due to death or the inability of a child's own parents to care for him. All of these services are available through this Division of the Department.

We now turn to the "private" agencies. These are so numerous that it will be impossible to cover them. We will, however, attempt to give information on some of the better known larger groups.

In the Health grouping we have such agencies as the Maine Tuberculosis Association with branches in most counties, The Maine Cancer Society, The Maine Heart Association, Pine Tree Society, National Foundation for Infantile Paralysis, District Nursing Association and others that are in various degrees of development.

The Maine Tuberculosis Association and its affiliates provide Chest X-rays for diagnostic and follow-up on possible and known T.B. patients. They assist in planning for patients to go to sanatoria and generally are interested in assisting a patient with this diagnosis. Offices are listed on a County basis.

The Maine Cancer Society provides Therapeutic X-ray, radium and other prescribed treatments when ordered through an approved Cancer Clinic for cancer patients who are unable to provide such care for themselves. Medication and nursing equipment may also be made available in specific situations to assist with *home* care. Help is not available to patients in nursing homes for these special needs. Offices are in Brunswick, Maine.

The Pine Tree Society for Crippled Children and Adults, Inc. provide appliances and instructions to assist the handicapped person to adjust to his condition. The best known resources of this agency are the Hyde Memorial Home and Pine Tree Camp both of which provide facilities for the rehabilitation of orthopedically handicapped children.

The National Foundation for Infantile Paralysis is well known to all through its March of Dimes

Drive each year. Services of this agency are limited to patients with a diagnosis of Poliomyelitis. For these patients financial assistance is provided for most complete medical care. The offices of this agency are located at 142 High Street, Portland, Maine.

In larger communities there are Social Service agencies to offer nursing assistance and others that provide counselling and assistance with planning for most family and children's problems that confront the physician.

Family Welfare Agencies provide counselling for the aged, marital difficulties, work adjustment, rehabilitation, problems of environment and so forth.

Children's agencies provide counselling with problems of parent-child relationship—foster home placement and in some instances adoption.

In the case of large urban areas it is wise to consult your local Community Chest office as they will be able to direct you to the proper agency for help for your patient.

The problem of the unmarried mother is always a complicated and difficult one and is handled by several agencies.

On a state-wide basis there is the New England Home for Little Wanderers with offices in Waterville and Caribou. In addition to its work with the unmarried mother, foster home placement, study of emotionally disturbed children in their Boston Home is also offered.

Temporary Home for Women and Children with offices in Portland offers counselling, financial assistance and foster home placement for unmarried mothers on a state-wide basis. This agency then refers these mothers to other agencies for adoption when this is indicated.

Nothing has been said here of the State Hospital Aid Program as it is understood that this subject has been covered at length in earlier articles.

The Sweetser Children's Home in Saco, Maine, is a study treatment home for emotionally disturbed children. This Agency received quite complete coverage in an earlier article of this JOURNAL.

Also it would be well to mention local Public Welfare Departments and Town Officials as sources of help because in many instances they are the last and only resource for difficult problems. They should not be underestimated.

As you can see, this has been a swift trip through the field of Health and Welfare. It is not intended to be a complete reference work. It is, however, a resource that may be of value. It is suggested that if you have any problem that appears to fall into the policy or program of any agency write to that agency. If they do not take care of the problem themselves in most instances they will suggest someone who will.

As this article is closed allow me one word of

Continued on page 248

The Journal of the Maine Medical Association

DANIEL F. HANLEY, M. D., Brunswick, Editor

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ACROSS THE DESK

Medical Legislation—Washington, D. C.

The military's reversal of its traditional opposition to recognizing osteopaths was the major factor influencing the Armed Services Committee of the House to report favorably on HR 483, a bill designed to allow osteopaths to be commissioned in the Medical Corps on equal status with Doctors of Medicine. Dr. Frank B. Berry, Assistant Secretary of Defense, urged favorable action by the House Committee. A Presidential directive could include osteopaths under the Doctor Draft Act just passed. This legislation will be followed with interest. The original bill was introduced into the Senate by Senator Margaret Chase Smith of Maine.

A trip to Washington the latter part of July revealed that this bill had passed the House without a dissenting vote—and that it was in the hands of the Senate Armed Services Committee. This committee is composed of the following members.

Democrats

Richard Russell, Georgia, Chairman
Harry F. Byrd of Virginia
Lyndon Johnson of Texas
Estes Kefauver of Tennessee
John Stennis of Mississippi
Stuart Symington of Missouri
Henry M. Jackson of Washington
Sam J. Ervin, Jr., of North Carolina

Republicans

Styles Bridges of New Hampshire
Leverett Saltonstall of Massachusetts
Ralph E. Flanders of Vermont
Margaret C. Smith of Maine
Francis Case of South Dakota
James H. Duff of Pennsylvania
Herman Welker of Idaho

We are also listing the names of Senators and Representatives from Maine, who we feel will be interested to hear your views on this problem.

Senate

Margaret Chase Smith
Frederick G. Payne

Representatives

Robert Hale
Charles P. Nelson
Clifford G. McIntire

The Doctor Draft Act was extended for another two years. Two changes in the law lower maximum age limit from 51 years to 46 years; also the new law no longer applies to physicians and dentists who have reached their 35th birthdays and who have been rejected for a medical or dental commission at any time solely on the grounds of physical condition. The Defense Department points out that the man has to be able to demonstrate that he actually applied for a medical or dental commission and was rejected; a 4F Draft Board classification is not sufficient. The law will not result in the discharge of men already in the Service.

Voluntary contributory health insurance for government employees and their families appears to be close to reality.

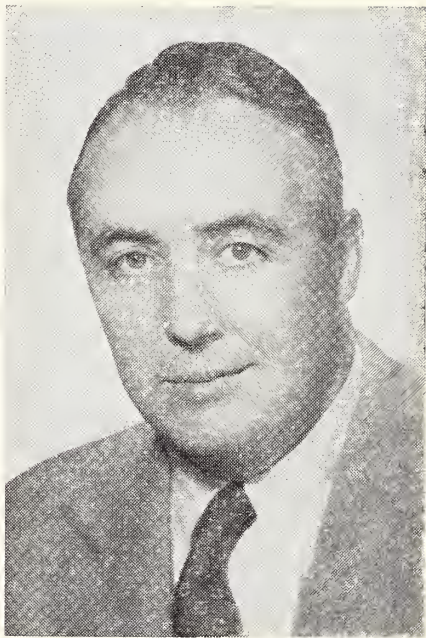
The plan offers U. S. employees the option of signing up with a local nonprofit service or indemnity plan, providing 75% of the workers in the particular operation vote for a particular plan and providing that plan is approved by the U. S. Civil Service Commission. If the employees can't get together, or if no adequate plan is available locally, they can sign up

Continued on page 238

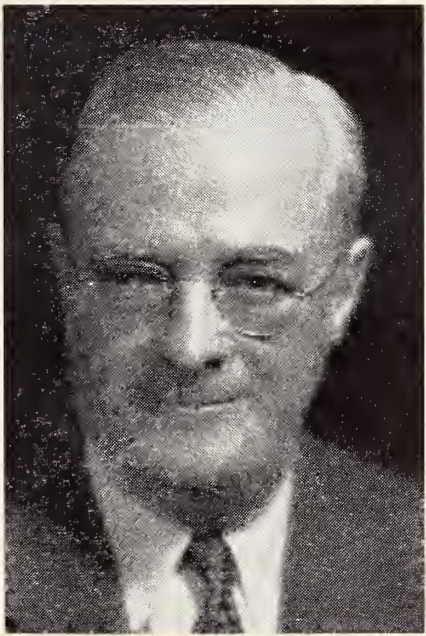
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infections including those caused by Gram-positive and Gram-negative bacteria, rickettsia, and certain viruses and protozoa. Furthermore, it is a *quality* product; every gram is made under rigid control in Lederle's *own* laboratory.

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Across the Desk—Continued from page 234

for a uniform national indemnity plan to be underwritten by one or more large national insurance companies and negotiated by the Civil Service Commission. The proposed law itself lists specifically the original benefits that must be provided by the uniform plan, but authorizes the Commission to readjust them.

Regardless of which type coverage the employee selects for himself and his family, the federal contribution would be figured the same way. It could not exceed one-third of the total premium, or \$19.50 annually for a single person or \$52 for one with dependents, whichever figure is the lesser. If the uniform plan is chosen, the single employee could not be charged more than \$39 annually, or the one with dependents more than \$108 annually. But under any other plan, the employee would pay the difference between the U. S. contribution and the premium cost.

A system of major medical cost or catastrophic insurance also would be provided. Under it the employee would have to pay the first \$100 of cost, after benefits of the basic policy had been exhausted, before major medical cost benefits would become available. From that point on, until \$10,000 had been paid by the company, the employee would have to pay only 25%.

As this is being written this session of Congress is drawing to a close and it appears that the only other pieces of medical legislation to be seriously considered are:

1. A bill for the survey of mental illness on a nationwide basis, which passed the House earlier in the session.

2. The proposal for Federal grants to states to help finance Salk vaccine costs. The states would decide the priority of age groups, but in the public program there could be no "Means Test" to determine whether a family could afford to pay.

3. Federal grants to Medical schools.

A 5-year 250 million program of grants to schools for construction, expansion and maintenance up to $\frac{2}{3}$ of new school construction cost would be supported by the Government and up to $\frac{1}{2}$ of existing school costs; if the existing school increased its freshman enrollment 5% over last year it could also get up to $\frac{2}{3}$.

The AMA is opposed to the new social security bill. As it now stands the bill would:

1. Provide benefits to disabled children over age 18. (Benefits now stop at age 18.)
2. Make women eligible for benefits at age 62. (Present law—age 65.)
3. Provide compulsory national disability insurance at age 50 to workers certified as disabled. (Present law freezes pension rights as of date of disability, but no benefits are received until age 65.)
4. Extend OASI coverage on a mandatory basis to all self-employed, except Doctors of Medicine.
5. Increase the contributory rate for employers and employees as well as for the self-employed.

Dr. Elmer Hess, President of the AMA, telegraphed every member of the House of Representatives urging defeat of the compulsory disability insurance amendment because there were not "full and open public hearings."

A letter from George Lull, M. D., quotes some figures of interest to the 153,000 Medical Doctors who make up the AMA.

During the first six months of 1955 the AMA, acting as Uncle Sam's tax collector, withheld from employee's paychecks \$309,721 in federal income taxes.

During the first six months of 1955 the AMA withheld \$41,371 from employees for social security and in addition had to match this amount sending a check to the U. S. Treasury at the end of June for \$82,742.

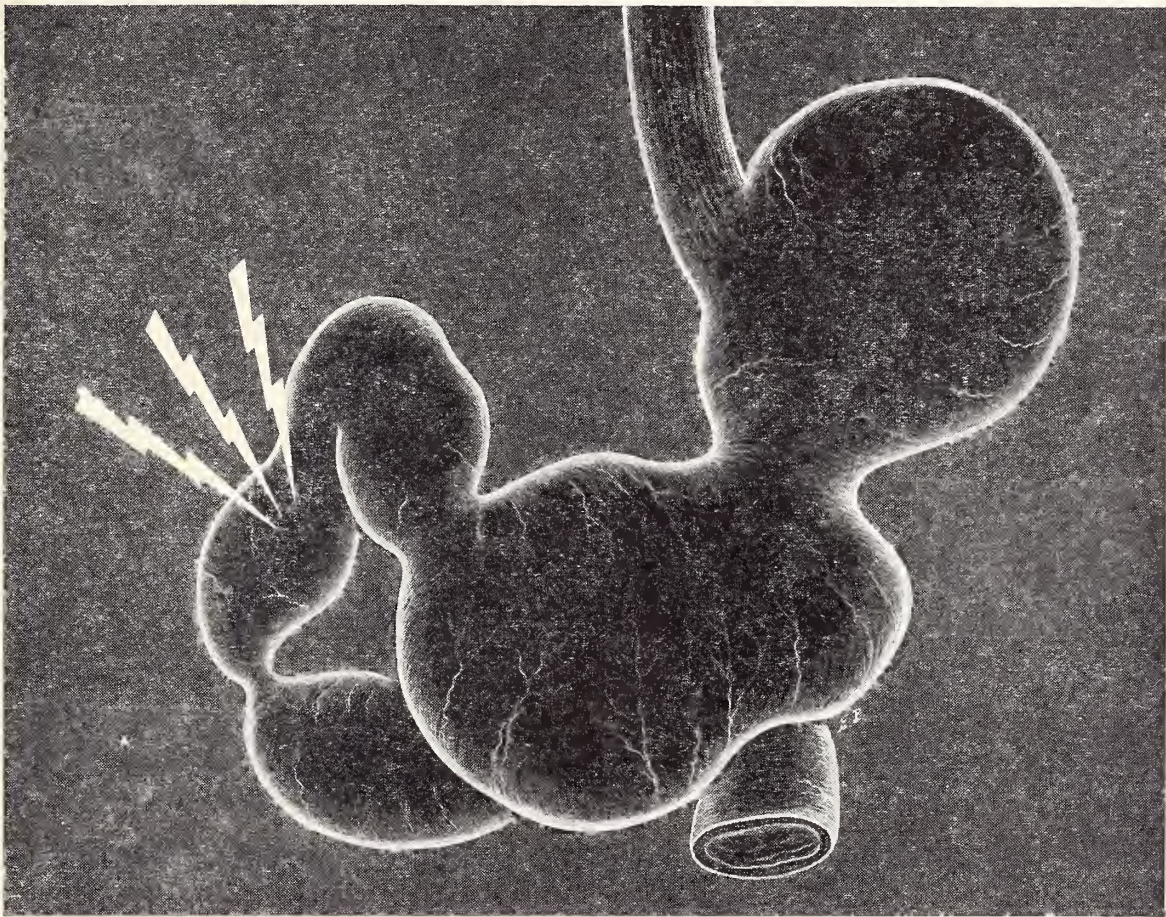
For Workman's Compensation during the first six months of 1955, AMA paid \$3,776 in premiums.

For state unemployment tax AMA paid for the first six months \$5,441.

The Federal unemployment tax for the same period was \$4,500.

In a report to Congress summarizing its two years of work, the Hoover Commission recommends changing the federal administrative structure so that some of the 33 independent agencies now reporting directly to the President can report instead to a presidential assistant. The Commission estimates that if its recommendations were put into effect the net savings would be "enough to balance the budget and provide for a reduction in taxes."

PRO-BANTHINE FOR ANTICHOLINERGIC ACTION



Abnormal Motility as the Cause of Ulcer Pain

Until recently the general opinion was held that ulcer pain was primarily caused by the presence of hydrochloric acid on the surface of the ulcer.

Present investigations^{1,2} on the relationship of acidity and muscular activity to ulcer pain have led to the following concept of its etiologic factor:

“... abnormal motility² is the fundamental mechanism through which ulcer pain is produced. For the production and perception of ulcer pain there must be, one, a stimulus, HCl or others less well understood; two, an intact motor nerve supply to the stomach and duodenum; three, altered gastro-duodenal motility; and four, an intact sensory pathway to the cerebral cortex.”

Pro-Banthine® has been demonstrated consistently to reduce hypermotility of the stomach and intestinal tract and in most instances also to reduce gastric acid-

ity. Dramatic remissions¹ in peptic ulcer have followed Pro-Banthine therapy. These remissions (or possible cures) were established not only on the basis of the disappearance of pain and increased subjective well-being but also on roentgenologic evidence.

Pro-Banthine Bromide (Beta-diisopropylaminoethyl xanthene-9-carboxylate methobromide, brand of propantheline bromide) has other fields of usefulness, particularly in those in which vagotonia or parasympathotonia is present. These conditions include hypermotility of the large and small bowel, certain forms of pylorospasm, pancreatitis and ureteral and bladder spasm.

1. Schwartz, J. R.; Lehman, E.; Ostrove, R., and Seibel, J. M.: A Clinical Evaluation of a New Anticholinergic Drug, Pro-Banthine, *Gastroenterology* 25:416 (Nov.) 1953.

2. Ruffin, J. M.; Baylin, G. J.; Legerton, C. W., Jr., and Texter, E. C., Jr.: Mechanism of Pain in Peptic Ulcer, *Gastroenterology* 23:252 (Feb.) 1953.

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COMING MEETINGS

Knox County Medical Society

September 13, 1955—Speaker: Harry Shwachman, M. D., Assistant Professor of Pediatrics, Harvard Medical School
Subject: The Use and Abuse of Antibiotics
October 10, 1955—Speaker: Sydney Gellis, M. D., Assistant Professor of Pediatrics, Harvard Medical School
Subject: Liver Disease and Liver Function Tests
Both meetings will be held at The Copper Kettle, Rockland, Maine, at 6.30 P. M.

21st Annual New England Health Institute at

Colby College Waterville, Maine

August 30, 31 and September 1, 1955

PROGRAM

Registration

The registration desk at Roberts Union will open at 2:00 P. M. on Tuesday, August 30, and will be open for the remainder of the three-day session.

Institute sessions, except the opening session on August 30, will be open to registrants only.

Dinner

Dinner will be served in the College Dining Hall, Roberts Union, between 6:00 and 6:45 P. M. on Tuesday, August 30th.

Opening Session

8:00 P. M. Tuesday, August 30, Lorimer Chapel
(Public Invited—No registration required)

Presiding:

Dean H. Fisher, M. D., M. P. H., Commissioner, State of Maine Department of Health and Welfare

Invocation:

The Reverend Charles O. Brown, D. D., Rector, St. Mark's Episcopal Church, Waterville, Maine

Welcome:

The Honorable Edmund S. Muskie, Governor of the State of Maine

Address:

"Lighthouses in a Changing World"

O. Spurgeon English, M. D., Chairman, Department of Psychiatry, Temple University Medical School, Philadelphia, Pennsylvania

Reception:

An informal reception will follow Dr. English's address

Wednesday Morning, August 31

General Session

Banquet Hall—Roberts Union

9:00 A. M.

Presiding:

Martyn A. Vickers, M. D., Bangor, President, Maine Medical Association

Invocation:

The Reverend Gilbert N. Lemieux, Notre Dame Church, Waterville

Greetings of the College:

J. Seelye Bixler, Ph. D., President, Colby College

9:20-10:10 A. M.

"Our Changing Community"

Ethel Alpenfels, Ph. D., Professor, Department of Educational Sociology and Anthropology, School of Education, New York University

10:20-11:10 A. M.

"The Young in Our Community"

Martha L. Clifford, M. D., Chief, Community Health Services, Connecticut State Department of Health

11:20-12:10 A. M.

"The Aging in Our Community"

Michael M. Dacso, M. D., Chief Geriatric Rehabilitation Project, Goldwater Memorial Hospital, Welfare Island, N. Y.

- Luncheon

12:30-1:15 P. M.

College Dining Hall, Roberts Union

Wednesday Afternoon, August 31

Panel Sessions

"Through Prevention and Rehabilitation to Optimal Health"

2:00-4:00 P. M.

(All panel sessions conducted simultaneously)

Parlor, Delta Kappa Epsilon House:

"The Role of Home Treatment in Tuberculosis Control"

Leader: Charlotte Silverman, M. D., Director, Bureau of Tuberculosis, Baltimore City Health Department, Baltimore, Maryland

Miller Library, Room 204-C:

"Accident Prevention"

Leader: Howard G. Richardson, Director, Physical Education, Health and Recreation: Driver Education, Maine Department of Education

Roberts Union, Smith Room:

"Changing Patterns in Family Life"

Leader: Erasmus Hoch, Ph. D., Chief Clinical Psychologist, Veterans Administration Center, Togus, Maine

Roberts Union, Study Room:

"Juvenile Delinquency"

Leader: Herbert G. Espy, Commissioner, Maine Department of Education

Averill Auditorium, Keyes Building:

"Control of Radioactive Contamination of Water and Aquatic Life"

Leader: L. J. Cherubin, Supervisor, Health Physics Unit, Knolls Atomic Power Laboratory, General Electric Company, Schenectady, New York

Miller Library, 3rd Floor, Room 204-D:

"Prevention and Rehabilitation as Applied to Housing"
- Leader: Edward W. Colby, M. D., Director, Portland City Health Department, Portland, Maine

Miller Library, 3rd Floor, Room 201-B:

"The Three F's for Better Nutrition—Facts, Furtherance, Finance"

Leader: Dorothea Nicoll, Director, Nutrition Section, Massachusetts Department of Public Health

Roberts Union, Student Government Room:

"Teamwork in Rehabilitation"

Leader: Herbert Koepp Baker, Ph. D., Director, University of Illinois, Clept Palate Center

Miller Library, 3rd Floor, Room 203-B:

"Prevention in Dentistry"

Leader: William D. Wellock, D. M. D., Director of Dental Health, Massachusetts Department of Public Health

Roberts Union, Whitney Room:

"Administrative Communication"

Leader: Murray R. Nathan, Director, Office of Planning, New York State Department of Health

Parlor, Alpha Tau Omega House:

"Local Health Services—Changing Concepts in Organization, Administration, Leadership"

Leader: A. L. Chapman, M. D., Regional Medical Director, Region 11, Public Health Service, New York City, N. Y.

Participants:

Maine—Dean Fisher, M. D., Commissioner, State of Maine Department of Health and Welfare

New Hampshire—John S. Wheeler, M. D., State Health Officer, New Hampshire Department of Health

Vermont—Robert B. Aiken, M. D., Commissioner, Vermont Department of Health

Continued on page 243

METICORTEN

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STANDING COMMITTEES — 1955-1956

Standing Committees for 1955-1956 as proposed by the Nominating Committee and approved at the Second Meeting of the House of Delegates of the Maine Medical Association at Rockland, Maine, June 20, 1955.

NOMINATING COMMITTEE

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 Roger J. P. Robert, M. D., 331 Main St., Saco (3 yrs.)
 * Frederick J. Gregory, M. D., 16 High St., Caribou (1 yr.)
 * Called into the Active Naval Reserve as of September, 1955.

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 Howard H. Milliken, M. D., 105 Second St., Hallowell (1 yr.)

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 James A. MacDougall, M. D., 303 Penobscot St., Rumford (3 yrs.)

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 Edward K. Morse, M. D., 22 White St., Rockland (2 yrs.)
 Waldo A. Clapp, M. D., 215 College St., Lewiston (1 yr.)
 Kenneth W. Sewall, M. D., 2 School St., Waterville (1 yr.)
 Clyde I. Swett, M. D., 18 Sherman St., Island Falls (1 yr.)

Committee on Credentials

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 Lt. John A. Woodcock (MC), USNR, U. S. Naval Hospital, Chelsea, Mass. (2 yrs.)
 John F. Dougherty, M. D., 112 Front St., Bath (3 yrs.)
 Paul A. Fichtner, M. D., 6 Pleasant St., Rangeley (3 yrs.)
 Storer W. Boone, M. D., 429 Main St., Presque Isle (1 yr.)

Connecticut—Stanley H. Osborn, M. D., Commissioner, Connecticut State Department of Health

Massachusetts—Robert E. Archibald, M. D., Director, Division of Local Health Administration, Massachusetts Department of Public Health

Roberts Union, "The Hangout":

"Human Relations in Public Health"

Leader: L. P. Scott, Ph. D., Director, Division of Behavior Studies, Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine

Participants:

Ruth Simonson, Mental Health Nursing Consultant, Region 11, Public Health Service, New York City, New York

Robert L. Johnson, Public Health Educator, Rip Van Winkle Clinic, Hudson, New York

Exhibits

4:00-5:00 P. M.

This time has been especially designated for a tour of the exhibits. *We Welcome Our Exhibitors* and urge you, *The Institute* participants, to visit the exhibits which are centrally arranged in the Main Lobby, Roberts Union, for easy viewing

Dinner

6:00-6:45 P. M.

College Dining Hall, Roberts Union

Thursday Morning, September 1

General Session

9:00 A. M., Banquet Hall, Roberts Union

Presiding:

Conrad Wesselhoeft, M. D., President, Massachusetts Medical Society

9:20-10:10 A. M.

"The Job Ahead—Thinking About It"

W. Palmer Dearing, M. D., Deputy Surgeon General, Public Health Service, Washington, D. C.

10:20-11:10 A. M.

"The Job Ahead—Planning For It"

Herman E. Hilleboe, M. D., Commissioner, New York State Department of Health

11:20 A. M.-12:10 P. M.

"The Job Ahead—Acting To Meet It"

A. L. Chapman, M. D., Regional Medical Director, Region II, Public Health Service, New York City

Luncheon

12:30-1:15 P. M.

College Dining Hall, Roberts Union

Thursday Afternoon, September 1

Institute Summary

2:00-3:00 P. M., Banquet Hall, Roberts Union

Presiding:

Edward W. Colby, M. D., Director, Portland City Health Department, Portland, Maine

Summarist:

E. Parker Johnson, Ph. D., Professor, Department of Sociology, Colby College

Registration:

Registration fee—\$2.00

Each person attending any institute session, except the opening session on the evening of August 30, is expected to register.

Continued on page 244

METICORTEN

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Cleft Palate Institute

To Be Held Tuesday, August 30, 1955

At the City Hall, Room 211, Portland, Maine

Under the Sponsorship of

The Division of Maternal and Child Health

Maine Department of Health and Welfare

Endorsed by the

Maine Medical Association

and the

Maine Dental Association

PROGRAM

Morning Session

9:45 A. M.

Welcome—Ella Langer, M. D., Director Division of Maternal and Child Health and Crippled Children Services

10:00 A. M. to 12:00 M.

1. General orientation to the cleft palate problem
Growth of multi-professional teams and their role in cleft palate rehabilitation
2. Anatomy and physiology of cleft palate
3. Role of Services for Crippled Children in a state-wide rehabilitation program

Noon Recess

Afternoon Session

2:00 P. M. to 4:00 P. M.

1. Clinical approach to the child with a cleft palate
Pediatric management
Surgical approach
Prosthetic speech appliances
Preventative dentistry
Orthodontics
Special education
Psycho-social problems
2. Patient presentation

Participants

Herbert Koepp Baker, Ph. D., Director, Cleft Palate Center, University of Illinois

Herbert R. Kobes, M. D., Director, Division of Services for Crippled Children, University of Illinois

Edward F. Lis, M. D., Acting Director, Cleft Palate Center, University of Illinois

Samuel Pruzansky, D. D. S., Director of Research, Cleft Palate Center, University of Illinois

American Medical Association

Clinical Session

Mechanics Building, Boston

November 29 to December 2, 1955

One feature of the Clinical Session will be daily closed-circuit Color Television programs originating from the New England Deaconess Hospital. Morning programs will present *surgical* procedures by Deaconess staff members. Afternoon programs will be *medical* in nature.

Physicians desiring to take part in the afternoon medical programs are urged to send abstracts of presentations promptly to the Chairman of the Television Committee. For further details see page 963 of the June 2 issue of the *New England Journal of Medicine*.

C. CABELL BAILEY, M. D.

KENNETH W. WARREN, M. D.

ALEXANDER MARBLE, M. D.,

Chairman,

81 Bay State Road,

Boston 15, Mass.

**Council on Postgraduate Medical Education of the
American College of Chest Physicians**

The Council on Postgraduate Medical Education of the American College of Chest Physicians, in coöperation with the respective state chapters of the College, as well as the staffs and faculties of the local hospitals and medical schools

of Chicago and New York City will sponsor the following postgraduate courses on diseases of the chest this fall:

10th Annual Postgraduate Course, Hotel Knickerbocker, Chicago, Illinois, October 3-7, 1955

8th Annual Postgraduate Course, Park-Sheraton Hotel, New York City, November 14-18, 1955

Our postgraduate courses endeavor to bring physicians up to date on recent advances in the diagnosis and treatment of heart and lung disease. Tuition is \$75 for each course which includes round table luncheons.

Further information may be secured by writing to the Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

The Academy of Psychosomatic Medicine

The Academy of Psychosomatic Medicine will hold its Second Annual Meeting on October 6th, 7th, and 8th, 1955, at the Plaza Hotel in New York City. The subject of this year's Scientific Program is "The Psychosomatic Aspects of Drug Administration." There is no registration fee. Guests may attend the Banquet.

A preliminary program can be obtained from the Secretary, Ethan Allan Brown, M. D., 75 Bay State Road, Boston, Massachusetts. Reservations should be made directly with the Hotel, and a carbon copy sent to the Secretary's office.

NOTICES

Maine Radiological Society

The following were elected officers of the Maine Radiological Society at the time of the Annual Meeting of the Society on June 21, 1955:

President: G. E. Clifford Logan, M. D., Portland, Me.

Vice President: Hugh A. Smith, M. D., Bangor, Me.

Secretary-Treasurer: Walter A. Russell, M. D., Augusta, Me.

Councilor to the American College of Radiology: Jack Spencer, M. D., Portland, Me.

U. S. Department of Health, Education and Welfare

Public Health Service

Washington 25, D. C.

The Public Health Service, U. S. Department of Health, Education, and Welfare, on July 1, 1955, announced that, in accordance with Federal legislation enacted in August, 1954, it is assuming responsibility for health services for American Indians.

Public Law 568 of the 83d Congress transferred the Indian health and hospital program from the Department of the Interior to the Public Health Service July 1st. The program affects about 350,000 Indians living on reservations.

Fellowships For Basic Research in Arthritis

The Arthritis and Rheumatism Foundation is offering the following research fellowships in the basic sciences related to arthritis:

1. Predoctoral fellowships ranging from \$1,500 to \$3,000 per annum, depending on the family responsibilities of the fellow, tenable for 1 year with prospect of renewal.
2. Postdoctoral fellowships ranging from \$4,000 to \$6,000 per annum, depending on family responsibilities, tenable for 1 year with prospect of renewal.
3. Senior fellowships for more experienced investigators will carry an award of \$6,000 to \$7,500 per annum and are tenable for 5 years.

The deadline for applications is October 15, 1955. Applications will be reviewed and awards made in January, 1956.

For Information and Application Forms
Address the Medical Director
The Arthritis and Rheumatism Foundation
23 West 45th Street, New York 36, N. Y.

Results With

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against **PINWORMS**

In clinical trials, over 80% of cases have been cleared of the infection by one course of treatment with 'Antepar.'

Bumbalo, T. S., Gustina, F. J., and Oleksiak, R. E.; J. Pediat. 44:386, 1954.

White, R. H. R., and Standen, O. D.; Brit. M. J. 2:755, 1953.

against **ROUNDWORMS**

"Ninety per cent of the children passed all of their ascarides..."

Brown, H. W.; J. Pediat. 45:419, 1954.


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American Urological Association

"Urology Award"—The American Urological Association offers an annual award of \$1000 (first prize of \$500, second prize \$300 and third prize \$200) for essays on the result of some clinical or laboratory research in Urology. Competition shall be limited to urologists who have been graduated not more than ten years, and to men in training to become urologists.

The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Statler Hotel, Boston, Massachusetts, May 28-31, 1956.

For full particulars write the Executive Secretary, William P. Didusch, 1120 North Charles Street, Baltimore, Maryland. Essays must be in his hands before December 1, 1955."

Mental Health Clinic Schedule

The Division of Mental Health offers psychiatric clinic service to children and adults in the following cities:

Portland — Health and Welfare Department, 178 Middle Street. Every Tuesday.

Lewiston — Out-Patient Department, Central Maine General Hospital. Every Monday.

Augusta — Bureau of Health, Division of Mental Health. By Appointment.

Waterville — Mansfield Clinic, Thayer Hospital, 3rd Wednesday.

Bangor — Out-Patient Department, Eastern Maine General Hospital. 1st Wednesday afternoon.

Valentine School, Union Street. 1st Thursday.

A traveling clinic visits the following towns and cities at irregular intervals: Caribou, Houlton, Lincoln, Machias, Rockland and Rumford. The Portland Clinic is open daily with a staff of 1 psychiatric social worker and 1 psychologist. The psychiatrist is in attendance on Tuesdays. The other clinics are staffed by a psychiatrist and a psychologist.

Referrals may be made by private physicians, parents, families, school agencies, school superintendents, Department of Education, all divisions within the Department of Health and Welfare. Application blanks may be obtained from the main office of the Division of Mental Health — State House, Augusta.

Patients are seen by appointment only. Each child must be accompanied by a parent or guardian. Applications should be sent to the Director, Division of Mental Health, Department of Health and Welfare, State House, Augusta.

BOOK REVIEW

The Care of the Skin, Herbert Lawrence, M. D., 95 pp., with illustrations. Published by Little, Brown and Company, 34 Beacon St., Boston 6, Mass., 1955. Price, \$2.50.

This short book, written by a dermatologist, attempts to explain to the patient the anatomic, physiologic and therapeutic aspects of Acne Vulgaris. The author corrects the common misconceptions of acne and substitutes accepted scientific medical facts. Because the book is written with the adolescent patient in mind, it will probably have a greater popularity among the laity than among the medical profession.

DONALD P. COLE, M. D.,
Portland, Maine.

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TUBERCULOSIS ABSTRACTS*

Issued by the National Tuberculosis Association

Emotional Problems in the Treatment of Tuberculosis

By Frank E. Coburn, M. D., Editorial, The American Review of Tuberculosis, February, 1955.

The fact that 35 to 50 per cent of patients with tuberculosis do not complete the residential treatment of their disease is striking evidence that something is awry with the handling of these patients. The treatment of the disease tuberculosis is tremendously improved but, if the emotional problems of the diseased people are improperly handled, they do not and cannot cooperate in the treatment. Not only are the advantages of the improved therapy lost, but these patients return to their communities to become sources of infection.

The two main contributions psychiatry can make in this situation are: a general attitude toward people with greater understanding of the role anxiety plays in shaping behavior; and techniques for finding out the patients' concerns so that they can be relieved.

The diagnosis of tuberculosis is inevitably an anxiety-producing situation for the patient, as it may also be for the physician. The physician knows about tuberculosis and what would be anxiety-producing to him if he found he had the disease. Therefore, in a conscious endeavor to relieve the patient's anxiety (but really probably to relieve his own), he is apt to attempt to reassure the patient about those things which would have made him anxious. This is futile, if not pernicious, as the patient's knowledge of tuberculosis and his personality is different from that of the physician, his personal problems are different. The anxiety the diagnosis produces in him is distinct and unique to him. It must be assumed that anxieties are produced in him, and then he must be induced to talk about them. To do this, we must remain silent at first. This increases the patient's anxiety to the point where he may ask questions. If he does not do so—after a few minutes of silence we may ask—what does this mean to you, or, how do you feel about this. This encourages him to talk. Rushing in with reassurance is avoided until the major part of his concerns is brought out, in order not to cut off discussion of them because they usually come last.

Reassurance must not go beyond our own certain knowledge. With the rapid changes in tuberculosis therapy, the length and method of treatment are uncertain; and the patient must not be given certainty when there is none. Setting of dates and duration of treatment is especially to be avoided, as if the time set is not fulfilled, it undermines his confidence in all the tuberculosis treatment team and results in diminished cooperation if not flight from therapy. The patient can be reassured that treatment has greatly improved and that he will be treated until he is well, although the exact time is uncertain.

In the sanatorium certain things are expected of the patient, although these may never have been analyzed from an emotional point of view. The patient is asked to give up his possibly hard-earned maturity. No longer is he to be the active, independent, giving parent or adult. He is to become passive, dependent, and receptive. He is to lie quietly, let others do things for him, and to do little or nothing for others. This is a tremendous change in his way of living, and the ease with which the patient makes this change depends upon his past history of dependency and maturity, his personality structure, and his habitual techniques of relieving the anxiety to which we are all prey.

To some people, giving up of maturity and relaxing into dependency is regarded as a blessing. They have maintained or achieved their maturity with difficulty—or not at all—and it is a great relief to have nothing expected of them. These patients may appear to be "good" patients in the sanatorium, but the difficulties in rehabilitation are obvious. However, these patients may encounter difficulty in the sanatorium. Their continual dependent demanding may lead to rejection by the staff—so, at the same instant, regression to a child-

hood level is demanded and fault is found for doing so. Another type of patient has grown up despite his parents who tried to keep him immature and dependent. He has had to go through a rebellion at adolescence. Here is the sanatorium staff playing the parental role all over again. The patient is apt to react with his pattern of adolescent revolt, which leads to breaking of regulations or flight from the hospital. Another type of person has relieved his anxieties by action, whenever he has been upset. In a tuberculosis sanatorium, his anxieties are greatly increased by his fear of the disease, his concern about his family situation, and his economic helplessness. At the same time, his usual defense of activity is taken away. We think of the dangers of tuberculosis as being a stimulus to treatment cooperation but, if the anxiety of the patient under treatment is greater than that which he has about his disease, he may break off the treatment.

Some patients run into difficulty over the deprivation in the sexual sphere produced by the treatment situation. To some, it is a matter of relief of physical tension which, if not relieved, gives rise to anxiety, emotional tensions, and restlessness. Possibly more important is the emotional loss. To many people, sexual activity is the proof that they are fully loved by someone, and the loss of this only source of self-esteem produces too much emotional disturbance to be tolerated.

In the types cited above—and there are many more—understanding of the patient's emotional problems and the flexible adaptation of treatment to them is necessary if the patient is to rest or to complete his treatment.

The rehabilitation of patients after treatment is another area in which emotional factors are predominant. Here, in essence, we try to undo the regressed, immature, passive, receptive, and dependent role and ask the patient to become mature, independent, and productive again. Some difficulties can be alleviated by allowing the patient to maintain some maturity during the treatment. By presenting him with alternatives in planning his treatment, the support of his family, et cetera, we may nurture his self-esteem and the feeling that he can direct his own affairs. The amount of problem left at the time of rehabilitation depends on the personality of the patient, his degree of maturity before becoming ill, the degree of regression in the hospital, his methods of handling anxiety, the amount of tension and acceptance at home, residual symptoms, and the fears of recurrence. Thus, in the diagnosis, the treatment, and the rehabilitation of people suffering from tuberculosis, emotional factors are of paramount importance.

The major technique psychiatrists have to offer is simple in words—Get the patient to talk about himself. Most people enjoy the opportunity but may avoid the significantly disturbing areas. We must learn to listen quietly, sympathetically, and never by word, sign, or gesture express condemnation of the patient. If we do, he just won't talk to us. He may tell us things which are unacceptable to our moral standards. It is not our job to re-make his character but to treat his tuberculosis. Patients may talk a little and then stop. Here a nudging technique is needed; a simple "and then" may start him off again. Or repeating his last phrase, or asking "How do you feel about that?" In all of these, it is to be noted that no new ideas have been introduced but the opportunity to talk was given. These techniques are equally applicable to case finding, medical management, and to rehabilitation.

The goal is a patient who understands his disease, who accepts a treatment which does not violate his personality, and who returns to the community as a mature, responsible, productive adult.

(The printing of Tuberculosis Abstracts is made possible by the cooperation of your local tuberculosis and health association.)

* Vol. XXVIII, August, 1955, No. 8.

Benign Lymphoid Tumors of the Rectum
Continued from page 228

6. Hayes, H. T., and Burr, H. B.: Benign lymphomas of the rectum. *Am. Jour. Surg.*, 84:545-550, 1952.
7. Heller, E. L., and Lewis, H. H.: Benign lymphoma of rectum. *Am. J. Path.*, 26:463-471, 1950.
8. Li, I. Y.: Benign lymphoma of the rectum. *Surgery*, 23:814-820, 1948.
9. Maximow, A., and Bloom, W.: A textbook of histology. ed. 5, Philadelphia, W. B. Saunders Company, 1948, p. 408.
10. Miller, D.: Benign lymphoma of the rectum. *Am. Jour. Surg.*, 76:769, 1948.
11. Scarborough, R. A., and Klein, R. R.: Polypoid lesions of the colon and rectum. *Am. J. Surg.*, 76:723-727, 1948.
12. Shattuck, S. G.: Polypi of lymphatic tissue from a child's rectum. *Tr. Path. Soc., London*, 41:137-139, 1890.
13. Smith, P., and Copenhaver, W.: Bailey's textbook of histology, ed. 11, Baltimore, The Williams & Wilkins Company, 1944, p. 460.

14. Smith, T. E.: Primary lymphoid tumors of the rectum resembling internal hemorrhoids. *J. A. M. A.*, 121:495-498, 1943.

State Resources for Medical and Social Problems
Continued from page 233

caution. If you consult a Welfare Agency, be sure that it is a valid one. As in any profession there are qualified and unqualified workers. Do not judge all social workers by one unhappy experience any more than you would judge *your* profession by a similarly unhappy experience.

REFERENCE

A Directory of Social Service, Recreation and Health Agencies in the State of Maine, published 1954 by Neil Michaud, M.S.W., Bangor Family Service Society (\$1.65).

CHANGE OF ADDRESS
Maine Medical Association and Journal

As of September 1, 1955, the address of the Maine Medical Association and The Journal of the Maine Medical Association, will be changed from 142 High Street, Portland, Maine, to

DUDLEY COE INFIRMARY
Bowdoin College **Brunswick, Maine**

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The Journal of the Maine Medical Association

Volume Forty-Six

Portland, Maine, September, 1955

No. 9

EXPERIENCES WITH PULMONARY INFARCTION

GEORGE J. ROBERTSON, M. D., Sisters Hospital, Waterville, Maine

The most feared complication of thrombophlebitis is pulmonary embolism. Most pulmonary infarctions occur as complications of surgical operations, the puerperium, infectious diseases, carcinoma, heart failure, and severe injuries. Usually, and unfortunately, when thrombophlebitis and pulmonary infarction occur in the same patient, the first clinical episode is the infarction. The reason for this is that organization of the thrombus takes place rapidly within the first twenty-four to forty-eight hours and is accompanied by firm adherence to the wall of the vein. The histologic examination of fatal pulmonary emboli fails to reveal any evidence of organization. Therefore it must be assumed that these emboli are detached thrombi or fragments of thrombi of recent origin. If adequate anticoagulant therapy is administered to patients with clinically evident thrombophlebitis, embolism almost never occurs. This is further evidence that old thrombus does not become detached and that pulmonary emboli are detached fresh venous thrombi. This agrees with the frequent observation that fatal pulmonary embolism is actually an infrequent complication of clinically evident thrombophlebitis. In carcinoma and congestive heart failure the risk of progressive and recurrent thrombosis is high and apparently the tendency of these thrombi to adhere to the wall of the vein is less and hence the risk of pulmonary embolism greater. Any clues which may lead to the early diagnosis of pulmonary infarction may be life saving if adequate anticoagulant therapy is promptly given.

The following cases represent aspects of this thrombo-embolic disorder which have been instructive to us:

I. A., 46-year-old housewife, was admitted to the hospital 1½ years prior to death having sustained a left antecubital thrombophlebitis following trauma. This was followed in several days by a thrombophlebitis of the left leg and pulmonary infarction. Response to anticoagulant therapy was good. Twenty-four hours after hospital discharge an acute ileo-femoral thrombophlebitis of the right leg occurred. During the next hospital period of several weeks several episodes of thrombophlebitis involving the superficial and deep veins of both legs, the right external jugular vein, and the right antecubital vein occurred. Diagnosis of recurrent idiopathic thrombophlebitis was tendered. The patient was eventually brought under control with Dicumarol. Study for underlying carcinoma involving a pelvic examination, complete G-I series, I-V pyelogram, and chest film was carried out. An exploratory laparotomy was performed because of the finding of glycosuria on one occasion and neutral fat in the stool. Pancreas appeared normal. The entire gastrointestinal tract within the abdominal cavity was explored and no lesion was found. The patient was then carried successfully on ambulatory Dicumarol without thrombo-embolic episodes. She had two subsequent chest films at six month intervals. Five weeks before final hospitalization she developed a unilateral wheeze and on admission it was evident that she had a bronchogenic

carcinoma which had spread to the mediastinum. This patient was a female and a non-smoker, yet one year and a half prior to death diagnosis perhaps could have been made by bronchoscopy. This procedure probably should be included along with sigmoidoscopy, careful and repeated pelvic examinations, G-I X-ray studies, and abdominal laparotomy in any patient with recurrent spontaneous thrombophlebitis. It is of interest that this patient's thrombo-embolic episodes were adequately controlled by anticoagulant. It is reported in the literature that anticoagulants do not control thrombophlebitis occurring in carcinoma. One therefore should not feel too comfortable with adequate control.

M. F., 30-year-old female with recurrent episodes in the deep veins of both legs ultimately succumbed to a carcinoma of the ovary metastatic to peritoneum. Original pelvic examinations at the time of the first episodes were negative. Exploratory operation at that time may have saved her since there was one year between the original episode and death.

A. W., 67-year-old female, was dying with terminal carcinoma of the cervix with uremia from ureteral obstruction. Bedside discussion with Dr. J. Jackler evolved about the appearance of a sudden auricular fibrillation with reversion to a normal rhythm in twenty-four hours on digitalis therapy. He tendered the diagnosis of pulmonary infarction on the basis of the sudden appearance of auricular fibrillation with a rapid recovery to a normal rhythm. There were no other clues in the patient's history or physical examination. Postmortem revealed a right lower lobe pulmonary infarction.

L. D., a 53-year-old male with metastatic undifferentiated carcinoma of undetermined site, had hiccuping for two days. On the third day hemoptysis occurred. Postmortem revealed diaphragmatic infarcts.

H. G., 67-year-old male, had his first pulmonary infarction three weeks post herniorrhaphy. He subsequently had five pulmonary infarcts. There was improvement over the next five months. On two episodes, that of March 23rd and that of April 23rd, prothrombin times were 40% and 50% respectively. Several similar cases were observed over several months' time with infarction occurring when prothrombin times were between 30% and 50%. Since that time prothrombin levels have been kept between

10% and 30% with no recurrent episodes at those levels and no serious bleeding. It has been the opinion of many that prothrombin levels below 50% were probably effective in preventing thrombo-embolic phenomena.

Eleven of twenty-nine case records studied at the Thayer and Sisters Hospitals in Waterville were of pulmonary infarction occurring in congestive heart failure. The majority were small to moderate in size but undoubtedly contributed to the patient's demise. Dr. W. B. Manter of Bangor has brought to our attention the frequency with which pulmonary infarction occurs in congestive heart failure and stressed the occurrence of multiple small emboli giving no clear cut clinical picture but contributing to the patient's death. He has inferred the possible use of anticoagulants in all patients with congestive heart failure. The present findings suggest a similar approach.

SUMMARY

Pulmonary infarction most frequently occurs without peripheral clinical evidence of thrombophlebitis. Hiccups and suddenly occurring auricular fibrillation of short duration may be clinical clues to pulmonary infarction. Carcinoma is not infrequently complicated by pulmonary infarction. In recurrent spontaneous thrombophlebitis with or without pulmonary infarction, relentless search for carcinoma should be made including routine laboratory work, G-I, chest and kidney X-rays, sigmoidoscopy, repeated pelvic examinations, bronchoscopy, and finally exploratory laparotomy. Pulmonary infarction occurs frequently in congestive heart failure and evidence points to the increased prophylactic use of anticoagulants in such cases. Levels between 30% and 50% prothrombin time are not effective in preventing thrombo-embolic phenomena. Lower levels between 10% and 30% are safe and effective. If seconds are used, 2 to 2½ times controls are comparable.

BIBLIOGRAPHY

- Peripheral Vascular Diseases, Allen, Barker and Hines; W. B. Saunders Company, 1955.
- Multiple Pulmonary Emboli Complicating Congestive Heart Failure, W. B. Manter; Journal of the Maine Medical Association, Vol. 43, p. 85, March, 1952.
- Case No. 36411, New England Journal of Medicine, Vol. 243, p. 572, October, 1950.

ORGANO-AXIAL VOLVULUS

RICHARD L. CHASSE, M. D., and GEORGE E. FARRELL, M. D., Sisters Hospital, Waterville, Maine

This condition is only infrequently seen and reported, but as early as 1866, it was described by Berti¹ and has been reported intermittently every few years by authors, both at home and from abroad—Rosselet² in 1921; Rhinehart, et al.³ in 1926; Azmy and Marey⁴ in 1932, and more recently, Singleton⁵ in 1940.

Many theories pertaining to the etiology of this anomaly have been advanced, drawn mostly from observations at the operating table and from post-mortem studies. More recently, the roentgenologist has accurately previewed the findings before the surgeon and/or the pathologist have had an opportunity to do so.

Payer⁶ and Singleton⁵ each reported a classification of volvulus of the stomach which we have combined for brevity and clarity.

I. Type

- a. Organo-axial.
 - 1. Supracolic.
 - 2. Infracolic.

Rotation of the stomach upward around the long axis of the stomach. This type is seen more commonly than mesentero-axial volvulus.

- b. Mesentero-axial.

Rotation of the stomach from right to left, or left to right about the long axis of the gastro-hepatic omentum.

II. Extent

- a. Total—Cases in which the whole stomach except the diaphragmatic attachment rotates.
- b. Partial—Cases in which the rotation is limited to a segment of stomach, usually the pyloric end.

III. Direction

- a. Anterior—Cases in which the rotating part passes forward.
- b. Posterior—Cases in which the rotating part passes backward.

IV. Etiology

- a. Idiopathic volvulus.
- b. Secondary volvulus—Secondary to disease in the stomach or adjoining organs.
 - 1. Hernia or eventration of the diaphragm.
 - 2. Tumors of the stomach.
 - 3. Inflammatory processes.
 - 4. Peptic ulcers and/or hour glass stomach.
 - 5. Postoperative conditions—cases where there has been interruption of the phrenic nerve.
 - 6. Displacement by neighboring organs including the gravid uterus.

V. Severity

- a. Acute — Presenting a picture of an acute abdomen.
- b. Chronic—Causing constant or recurrent upper gastro-intestinal symptoms or symptomless.

Gastric volvulus may be present without symptoms, or may cause continued or intermittent complaints of epigastric pressure p.c., flatulence, belching, dyspnea p.c., tarry stools, anorexia with subsequent weight loss, intermittent dysphagia to solid foods, constipation, precordial pain with radiation to throat, neck and shoulders, and nausea.⁷

We present a case demonstrating organo-axial volvulus in a 65-year-old white male, G. W. This patient sought medical attention because of a progressive anorexia, causing weight loss and weakness, dysphagia with solid foods, epigastric distress p.c. with dyspnea and chest pain, especially on the left precordially. These symptoms had been concerning the patient intermittently for several years, becoming more severe and distressing for six to eight months prior to hospitalization.

Twenty-four years ago, the patient was hospitalized for tuberculosis of the left upper lung at which time a phrenic nerve interruption was done. Patient remained in a tuberculosis sanatorium for nearly one year thereafter, and was finally discharged as cured. About ten or twelve years elapsed before he developed his first gastro-intestinal symptom. From that time until his true diagnosis was brought to light, he seldom has had a well day.

Physical examination revealed a tall, thin man in no apparent distress. Chest examination showed absent breath sounds with flatness to percussion on the left, especially over the lower two-thirds of the chest and with accentuation of all sounds in the right chest. Abdominal examination was essentially normal — very thin and flat, no masses, spasm, or rigidity; mild tenderness over the epigastrium and radiating to the left side at this level. Patient belched and regurgitated frequently, holding his hand over the epigastrium while so doing. The patient was otherwise normal.

G. I. Series: The left diaphragm is markedly elevated, and exhibits no motion. The heart is displaced to the right. The esophagus enters the stomach inferiorly. The fundus of the stomach lies posteriorly and its inferior portion is inferior to the pars media. The greater curvature portion of the pars media is located adjacent to the diaphragm. The pars media is anterior to and at the level of the fundus.



PREOPERATIVE FILM

The stomach has apparently rotated anteriorly and upward. The greater curvature of the pars media forms the upper outline and lies adjacent to the diaphragm. The fundus has rotated and a considerable portion of it lies lower than the pars media.

The stomach and duodenal cap showed no intrinsic pathology.

The patient was treated medically for several months without success — anorexia with substernal pressure and progressive weight loss being the most common complaints.

Finally surgery was performed—a gastro-enterostomy to bypass the dilated and misplaced cardia, and a gastro-pexy to “unwind” the stomach and attach it to the anterior parietal peritoneum. The diaphragm on the left was greatly elevated.

The surgery and postoperative course was uneventful. For ten days, thereafter, the patient still complained of epigastric distress and some dyspnea. On the 11th day, he began to improve and his appetite returned. At the present time (6 weeks postoperative) the patient is back to work, feeling fine, and is eating foods he hasn't had for years. He is gaining weight. His one complaint is a very slight distress in the epigastrium if he eats an unusually large meal—and this complaint is regressing.

The phrenic nerve interruption in this patient caused, over a period of years, a tremendous elevation of the left diaphragm with rotation of the stom-



POSTOPERATIVE FILM

The greater curvature of the pars media has shifted to its usual location. The stomach is much more normal in appearance. The gastro-enterostomy functions well.

ach upward around its long axis, contributing wholly to the disease picture.

Postoperative X-rays show the stomach to be in normal position. The fundus is in the uppermost portion and the greater curvature assumes its normal position. The remainder of the stomach is also in normal position.

REFERENCES

1. Berti: Singolare attortigliamento dell'esofago col duodeno seguito da rapida morte. *Gazz. med. Ital.*, 1866, 9, 139.
2. Rosselet, A., and Gilbert, R.: Observation radiologique d'un volvulus de l'estomac. *J. de radiol. et d'electrol*, 1922, 6, 76-80.
3. Rhinehart, D. A., and Rhinehart, B. A.: Congenital abnormalities of stomach. *Radiology*, 1926, 7, 492-497.
4. Azmy, S., and Marey, A.: Volvulus of stomach. *Am. J. Roentgeol. and Rad. Therapy*, 1932, 27, 420-21.
5. Singleton, A. C.: Chronic gastric volvulus. *Radiology*, 1940, 34, 53-61.
6. Payer, A.: Volvulus ventriculi und die Achsendrehung des Magens. *Mitt. a.d. Grenzgeb. d. Med. u. Chir.*, 1907, 20, 686-726.
7. Gottlieb, C., Lefferts, D., and Beranbaum, S. L.: Gastric volvulus. *Am. J. Roentgenology*, 1954, 72, 609-638.

MALIGNANCY OF THE PARANASAL SINUSES

JAMES E. POULIN, M. D., Sisters Hospital, Waterville, Maine

In our never-ending search for malignancies we frequently disregard the nasal accessory sinuses as a site for the origin of malignant tumors. Fortunately malignant tumors rarely involve the nasal sinuses. Statistics show that tumors in this location comprise about 0.2 per cent of all human cancers. This means that out of every one thousand patients with carcinoma of all types only two cases will occur in the nasal sinuses. Statistically speaking this number may appear so small that it does not warrant our alertness. However, the disease does occur frequently enough so that its possible existence should be kept in mind with every examination of the nose.

The nasal accessory sinuses consist of the paired maxillary antra, ethmoids, sphenoids and frontal sinuses. These air-filled sinuses communicate with each other and with the nasal cavities. When cancer originates in the lining membrane of these spaces it tends to extend not only into neighboring nasal sinuses, but it eventually extends into the nasal cavity itself. Tumors originating in the maxillary antrum occur most commonly, and these are prone to extend backward into the ethmoid sinuses and also involve the orbit. When the primary site is in the ethmoid sinus, the extension is forward into the nasal cavity and antrum, laterally into the orbit and posteriorly into the sphenoid. For some unknown reason the frontal sinuses are very rarely involved, and these sinuses are seldom invaded by extension. The etiology of this disease is obscure as it is with most forms of carcinoma, and chronic sinusitis or the presence of polyps plays no part. The paranasal sinuses are lined with pseudostratified columnar epithelium and thus the most common variety of cancer is the epidermoid or squamous carcinoma. On rare occasions the morphologic variety may prove to be a sarcoma or a lymphosarcoma, but this is the exception rather than the rule.

The early progress of the disease in this location is unfortunately both lethal and silent. In most cases the earliest symptoms which will manifest the presence of a new growth is that of swelling. This usually occurs externally in the cheek. The next symptom to present itself is that of unilateral nasal stuffiness. This discomfort progresses until obstruction is complete. There is unilateral discharge associated with this symptom: this is at first watery and later becomes blood tinged. The sense of smell is lost when the lesion has reached this stage of invasion. Unilateral exophthalmos occurs relatively early as the floor of the orbit is always involved when a tumor originates from the maxillary or the ethmoid

sinus. The presence of unilateral swelling of the cheek is a bad prognostic sign for it indicates that the growth has already invaded the bone in order to have caused swelling of the overlying subcutaneous tissue.

Pain is a symptom which appears late in the disease and it is usually located over the sinus involved. As the lesion invades more tissue in its growth the patient develops a generalized headache which becomes progressively worse and requires large doses of opiates. The growing tumor causes deformity of the face and the destruction of all surrounding tissues. If the orbit is involved, not only is there exophthalmos but also fixation of the eyeball and loss of vision. If the growth extends downward, a swelling will appear in the hard palate and erosion will take place. After the lesion has eroded through the wall of the sinus the progress is very rapid and cellulitis and sepsis are evident and thus death usually occurs from local extension of the disease. Generalized metastasis is not a complication of this type of malignancy, but brain involvement occurs during the latter stages of the disease.

Unilateral nasal discharge with or without facial swelling on the same side should stimulate the examiner to think of the possibilities of a malignancy. X-ray studies of the sinuses should be carried out immediately and if the results show pathological findings such as bone erosion or increased sinus density a biopsy should be done.

In my short series of cases, I have not been fortunate enough to establish a diagnosis before bone erosion had occurred. In reviewing the literature it is evident that a very small percentage of cures has been achieved when the lesion was entirely confined to the floor of the antrum. In most instances these early lesions were discovered quite by accident while the operators were carrying out routine sinus surgery. This proves that the only possibility of establishing an early diagnosis of carcinoma of the nasal sinuses is by routinely sending all sinus curettements to the laboratory for microscopic studies. After the diagnosis has been established and if it is felt that the lesion has not spread too extensively, then the treatment of choice is that of surgical extirpation of the antrum followed by radiation treatment. The surgical procedure must be radical in its scope and it is best accomplished by establishing a large flap over the antrum by electrosurgery. This type of procedure tends to prevent metastasis from occurring during surgery. The open flap permits drainage from suppuration which always occurs. Radiation alone is

unsatisfactory because it produces edema and ulceration of the mucosa and there results from this such complications as sinus obstruction and pansinusitis. The use of radiation therapy after surgery can be carried out with a relative degree of safety through

the maxillary defect.

If all of us thought of malignancy as the first possibility instead of the last and ruled out its existence by microscopic study, then the percentage of cures would eventually increase.

FRACTURE OF THE FEMUR — MIDDLE THIRD

ALLAN J. STINCHFIELD, M. D., Augusta General Hospital, Augusta, Maine

In adults, the treatment of choice for simple fracture of the middle third of the femur is intramedullary fixation. This is not a new type of treatment but its successful use is relatively recent. It is reported that intramedullary ivory or bone pegs were employed by Koenig in 1913.¹ In 1918, Heygroves reported three cases of fracture in the proximal third of the femur in which he used medullary nails of three different types: one was a perforated metal tube; one, a steel rod which in section was cross-shaped; one, a solid rod. In 1935, other types of medullary fixation using Kirschner wires were done by Danis. Joly in Belgium used Kirschner wires for fixation of fractures in the forearm, metatarsal and small bones fractures. Steiman pins were also used for similar type of fixation.

In 1940, G. Küntscher² presented his method of treatment for fractures of the shafts of long bones. After exact reduction of the fragments, the long stainless steel pin of the so-called intra-medullary type was inserted through a small incision at a point away from the fracture site. This medullary nail united the fragments so firmly that the patient was able actively to move the extremity with no external support.

In 1951, at the Annual Meeting of the American Academy of Orthopaedic Surgeons, the subject of intramedullary fixation of femoral shaft fragments was reviewed. The discussion was based on the results of this procedure by different clinics and different individuals in over five thousand cases. From this discussion, it was concluded that there are indications and contraindications for this type of treatment. From the work of others and from my own experience, I believe that the best results and most painless handling of fractures of the middle third of the femur can be accomplished by good intramedullary fixation. It requires many less weeks of hospitalization than previous types of treatment. The dangers of this procedure in the proper hands are no greater than that of any major surgery. The danger of bone infection from open surgery will always be present but today is of no greater incidence than the infection rate of general surgery. The advantages of intramedullary fixation far outweigh, as they do in femoral neck nailing, the dangers of sepsis. In this series of nine cases, the general conclusions as stated above were confirmed.

The fracture should be a simple fracture. Transverse and oblique fractures are more easily done than are comminuted fractures with butterfly fragments. When the fracture is outside the limits of the middle third, less stability is obtained by intramedullary fixation; therefore, this type of fixation is usually not indicated. Besides fractures due to trauma, pathological fractures such as those in cancer and in Paget's Disease can be treated with resulting relief of pain to the patient. Infection or potential infection from compound fracture should be a contraindication to primary nailing. The intramedullary nail is indicated in the entire age group above fourteen or fifteen years. Ambulation can be started early; some patients are out of bed on the first post-operative day.

The following cases were done between 1950 and 1954. The ages were between 16 and 71. The results were good in all except the one with the pathological fracture in the distal third. Küntscher cloverleaf type stainless steel rod was used. None of the rods except in Case IV has been removed.

Case I—Male, Age 19. In May, 1950, sustained two fractures of the mandible, dislocation of left hip; fracture of the acetabulum; fracture of the right tibia and right femur. Femoral fracture was treated primarily by traction and cast. Femur was accidentally refractured five months later. Intramedullary fixation done in October, 1950. Began walking in ten weeks.

A.) First position in cast before accidental refracture.

B.) and C.) Rod in position. As patient was difficult to manage hip spica was also applied.

Case II—L. G. D., Female, Age 71, had severe Parkinson's Disease and Paget's Disease. Walked about her home only with difficulty. Fell fracturing femur. Operation on May 29, 1951. Home from hospital ten days later. Note the three transverse fractures. The middle one was the original one. The other two were caused by the straight rod going through the curved canal. Healing and end results were good.

Case III—H. W. D., Male, Age 18, fracture of thigh in auto accident. Operation, July 7, 1951. Two months later patient was doing full weight bearing.

A.) At operation.

B.) Thirteen months later.

Case IV—E. N., Male, 35, in motor scooter accident. Fracture of left femur and tibia and fibula of left leg.

- A.) At operation in December, 1951.
- B.) In September, 1952, at a Veterans' Hospital. Soon after this he bent the rod and refractured the femur in an accident. Treated elsewhere for this.

Case V—G. W., Female, Age 40. Auto accident. Fractured femur. Patient was very obese. Operation, October 28, 1952. Discharged home 12 days later.
X-ray of January 13, 1953.

Case VI—R. Z. C., Male, Age 16. Fractured femur in auto accident. Operation, July, 1953. Full weight bearing three months later.
X-ray October 1, 1953.

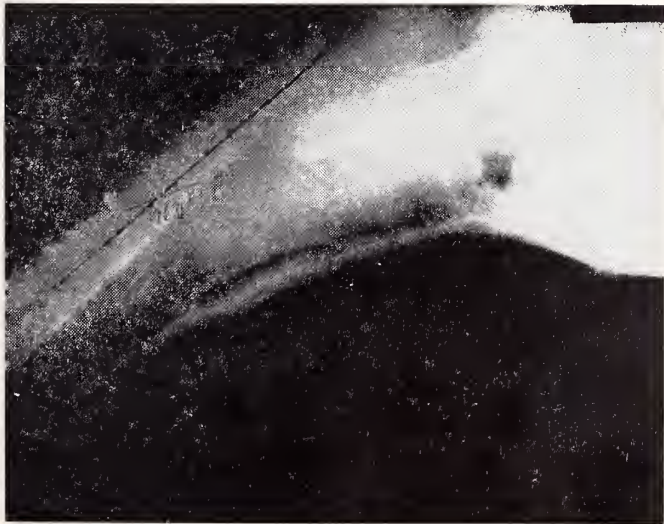
Case VII—C. M. G., Male, Age 19. Auto accident sustaining cerebral concussion, fracture of wrist and of femur. Partial weight bearing in five weeks.
A.) At operation, June 28, 1954.

Case VIII—L. C., Male, Age 54. Pathological fracture of the distal femur. Operation on November, 1954, as procedure to give terminal relief of pain. Primary lesion in lung. Original plan was to transfix the fracture and the knee joint and allow the patient up on crutches but the inclusion of the tibia in the fixation became impractical at the operation. Patient died of generalized carcinomatosis within six weeks.

- A.) X-ray at operation.
- Case IX—L. K., Male, Age 16. Auto accident. Fractured femur. Operation, March 24, 1954. Ambulatory on crutches in two weeks. Full weight bearing in two months but persistent abductor limp for ten months.
X-ray of October 2, 1954.



CASE I-B



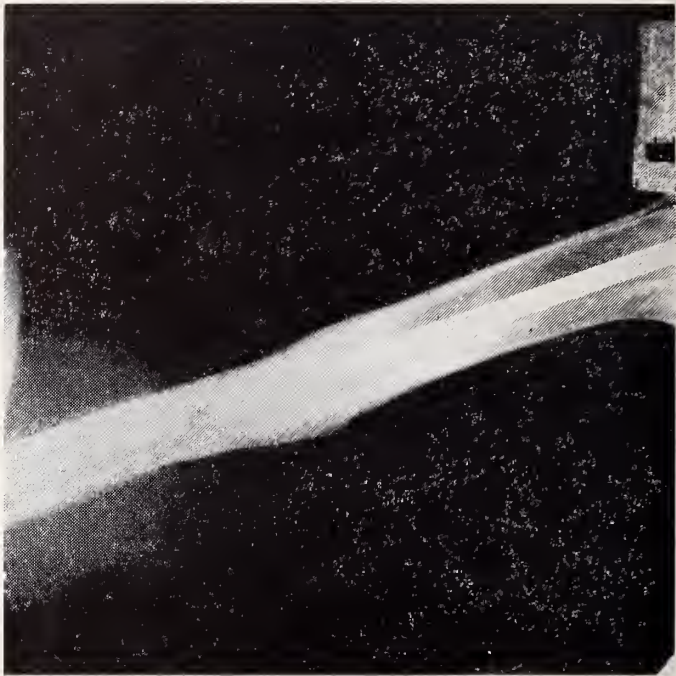
CASE I-A



CASE I-C



CASE II



CASE III-B



CASE III-A



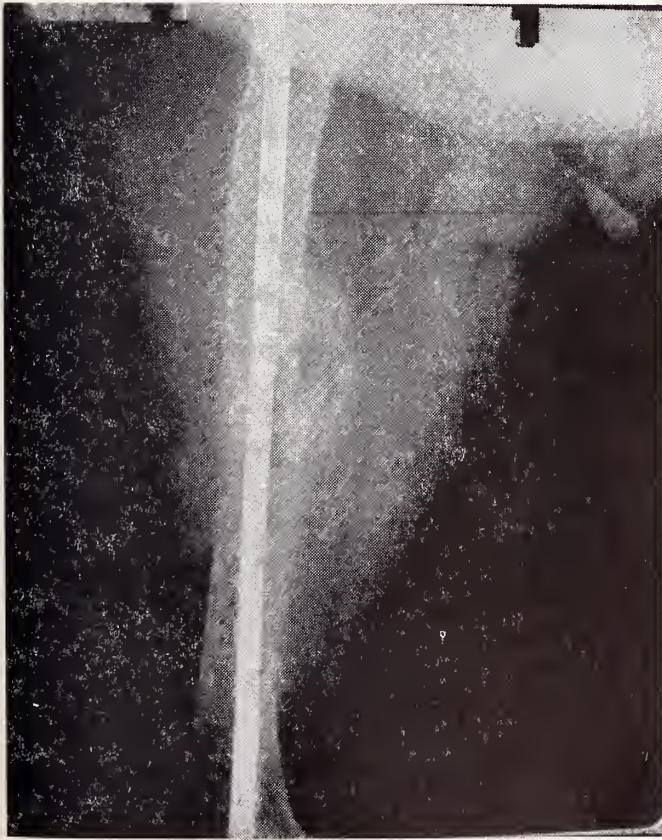
CASE IV-A



CASE IV-B



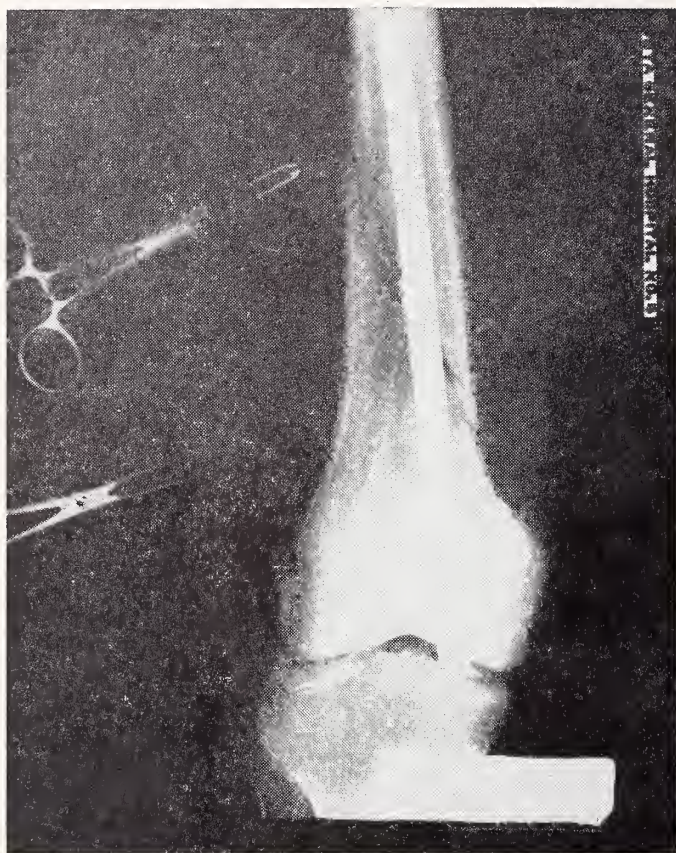
CASE VI



CASE V



CASE VII-A



CASE VIII-A



CASE IX

REFERENCES

1. Street, D. M.: One Hundred Fractures of the Femur Treated by Means of the Diamond-Shaped Medullary

- Nail. J. Bone and Joint Surg., 33A:659-669, July, 1951.
2. Küntscher, Gerhard: Die Marknagelung von Knochenbrüchen. Arch. f. Klin. Chir., 200:443-455, 1940.

SHOULD YOU MAKE A WILL?

EVERETT H. MANCY, Esq., Augusta, Maine*

One who attempts to give a talk on Wills, within the compass of half an hour, finds himself restricted by an enormous mass of legal literature which it would take months to carefully examine and create a complete and symmetrical structure. Just for example, American Jurisprudence, one of the recognized encyclopedias of law, devotes an entire volume of nearly 1100 pages to the topic "Wills." An old but standard work, Jarman on Wills, occupies three volumes, each nearly three inches thick. A later work, Schouler on Wills, consists of two volumes, each about three inches thick. In our day, we are confronted with statutes imposing state inheritance and estate taxes and Federal estate taxes, which challenge the skill of the draftsman in avoiding, not evading, so far as legally possible, the impact of taxes on your estate. The best that I can hope to do is to touch upon a very few of the high spots and try, the best I can, to make this talk of some interest.

Schouler tells us that, according to the Sacred Writings, Abraham, by will, left all of his large property to his oldest legitimate son, Isaac, and, before his death, gave gifts to the sons of his multitudinous concubines. Isaac left his property to his younger son in error. Jacob gave to his son, Joseph, a portion of his inheritance double that of his other sons. If you will read Chapter X of Genesis, you may, by the exercise of a lively imagination, come to the conclusion that Noah, by will, left to his three sons, Shem, Ham and Japheth, the entire world and everything in it and on it.

Wills were known and made in ancient Egypt, Babylon and Assyria and were known and used by the Hebrews, Greeks and Romans of antiquity. Instruments resembling the modern will were evolved under the Justinian Code promulgated during the later years of the Roman Empire. Testamentary disposition became lawful among the Germanic ancestors of the English race. Wills in some form appear to have been in use in England before the Norman Conquest and by the time of the Conquest were well established. The Norman Conquest, however, introduced the feudal system together with the feudal doctrine of primogeniture whereby all real property descended to the oldest son. This had two effects, one, it created a desire to avoid testamentary disposition of property in order to preserve intact the land and tenants of the feudal lords who supplied the King with armies and the food to sustain them, and, on the other hand, it created, among the so-called serfs and the common people, a strong desire to

break the rule of primogeniture, so that they could have the hope, at least, of ownership of land.

The foundation of the modern English law of wills is based upon the "Statute of Wills," enacted in the reign of Henry the Eighth who ruled England in the first half of the sixteenth century. The law of England, generally referred to as the Common Law, affected by many of the English statutes, naturally became the foundation for the law of most of the states of the United States.

Now, what is a Will?

Jarman has what I think is an excellent and comprehensive definition. "A will is an instrument by which a person makes a disposition of his property to take effect after his decease, and which is in its own nature ambulatory and revocable during his life." This ambulatory quality, giving to a will the right of change or revocation, in general distinguishes a will from other instruments by which property is conveyed from one to another, such as deeds, leases, bills of sale, etc.

A deed or similar conveyance, when properly drawn, executed and delivered, is a final document. A will, properly drawn, executed and witnessed, may readily be destroyed by the maker, who may make a succession of new wills, being careful to destroy each of his previous wills. The provisions of a will may also be enlarged or restricted by codicils, provided that they are properly drawn, executed and witnessed. A codicil is merely an amendment to an original will to which it must refer in specific and definite terms.

Now, who may make a Will?

Proceeding upon the assumption that we are all residents of Maine and that our property is all located in Maine, we refer to the Maine statutes. There we find, in Section 1 of Chapter 169, Revised Statutes 1954, that "A person of sound mind and of the age of 21 years and a married person, widow or widower of any age may dispose of his real and personal estate by will, in writing, signed by him, or by some person for him at his request and in his presence, and subscribed in his presence by 3 credible attesting witnesses, not beneficially interested under said will." Generally speaking, the statute must be explicitly followed. There is a statutory exception to the foregoing. If you will refer to Section 18 of said Chapter 169, you will find that a person during his last sickness, at his home or at the place where he resided ten days before making the will, may make a nuncupative or verbal will. He may also make a nuncupative will if he is suddenly taken sick away from home and dies before returning to his home. A soldier in actual service or a mariner at sea may dispose

* Presented at a meeting of the Kennebec County Medical Society on March 31, 1955.

of his personal estate and wages without regard to the provisions of the chapter. However, no testimony can be received to prove a nuncupative will after the lapse of six months from the time the words were spoken unless the words, or the substance of them, were reduced to writing within six days after they were spoken, and no nuncupative will is effectual to dispose of property exceeding \$100 in value, unless proved by the oath of three witnesses who were present at the time of the making of it and were requested by the testator to bear witness that such was his will.

To the best of my knowledge a holographic will, that is, one made wholly in a person's handwriting and signed by him, but lacking the three credible attesting witnesses, while effective in many jurisdictions, has no effect under the law of Maine, unless it can be considered and proved as a nuncupative will. Incidentally, the holographic will is a creation of the Civil Law, not the Common Law, and, I believe, in this country, first became effective in Louisiana which early adopted the Code Napoleon of the Civil Law.

You who have seen the usual printed form of will commonly in use in Maine are familiar with the attestation clause which reads "Signed, sealed, published and declared by the above named John Doe as and for his last will and testament in the presence of us who, at his request, in his presence, and in the presence of one another, hereto subscribe our names as witnesses thereto, on this seventeenth day of January, A. D. 1955, at Augusta, in the County of Kennebec and State of Maine." A strict compliance with this clause is, in my opinion, advisable, but, under the decisions of the Maine court, is definitely not essential. The Maine court has held that the testator need not sign in the presence of witnesses; that the witnesses need not see the testator sign, as his acknowledgment of his signature to each separately, by word or act, accompanied by a request to attest as a witness, is clearly sufficient; that the witnesses need not subscribe in the presence of each other, although each witness must subscribe in the presence of the testator; and that the witnesses need not subscribe at the same time. There is no set form of words to publish a will. Competent testimony can show that testator knew he had signed his will and intended so to do. Also, it is held that the signature to a will is not invalid by reason of the fact that another guided the hand of the testator when he signed, so long as it appears from the circumstances that the testator had the then present intention to affix his signature and was aware and fully cognizant of the details of the will. In *re Cox's Will*, 139 Maine 261; *Deake*, Appellant, 80 Maine 50.

The testator must, of course, be of sound mind. The requirement for a sound mind means that the testator must be able to recollect property and beneficiaries and that he is able to conceive the practical effect of the will. It does not require a perfectly bal-

anced mind. A sound mind is one that naturally possesses power and is not unduly impaired by old age or enfeebled by illness or tainted by morbid influence. In *re Loomis' Will*, 133 Maine 81.

Generally speaking, any person who is in any way, directly or indirectly, benefited by the will may not be an attesting witness. There are, of course, some exceptions to such a general statement. The true test is stated to be whether the will itself conferred, directly or conditionally, a beneficial interest upon the witness, Trinitarian Congregational Church, Appellant, 91 Maine 416, and the test of competency is at the time of attestation. It would seem that a witness competent at the time of attestation might, through circumstances, later become beneficially interested, through marriage or otherwise, but such fact would not destroy his competency.

There is one observation that I wish to make because it is extremely important, namely, that the courts will endeavor, from the contents of the will and all attendant circumstances, to give effect to the intention of the testator if it can be ascertained. Or, to put it in a different way, each person of sound mind who makes a will should know, within reasonably definite limits, the kinds and amount of property which he desires to leave to his beneficiaries and should see to it that the will, as drawn, correctly and definitely expresses his intention.

A will so conceived, properly drawn with due regard to statutory requirements, and legally executed and witnessed, will stand against any attack.

Suppose you do not make a Will—What happens?

Your property, both real and personal, then descends, not in accordance with your wishes but in accordance with certain specific rules in statutes enacted by the legislature. Chapter 170, Revised Statutes 1954.

If you leave a widow and issue, one third goes to your widow and the balance is divided among your issue. If no issue, then one half to the widow and the remainder to your kindred.

There are two important exceptions.

If you leave no issue and you and your wife are living together at the time of your decease and if your estate, after the payment of debts, funeral charges and expenses, does not exceed \$5,000, the widow takes it all. If the value of your estate exceeds \$5,000, after the payment of debts and other charges, then your widow will receive \$5,000 plus one half of the remainder of your estate.

If you leave no issue and have no kindred living, then your widow receives your entire estate, after the payment of debts and charges.

If no widow, then the estate descends in equal shares to your children and to the lawful issue of a deceased child by right of representation. If no widow or issue, then the estate goes to your father and mother in equal shares, and if no issue or father,

it goes one half to your mother, and if no issue or mother, it goes one half to your father. In either case, the remainder, or if no issue, father or mother, then the whole, descends in equal shares to your brothers and sisters or to their issue by right of representation.

Those are the essential provisions, and they apply to the widower as well as to the widow. There are others, but the foregoing is illustrative of what may happen if you make no will. Always remember that if you leave no widow or kindred, then your estate escheats to the State of Maine.

It may be that you are generally satisfied with the statutory disposition of your estate. In most cases, however, people like to feel that they themselves have made some provision for the disposition of their estates in accordance with the necessities and from a sense of duty, feeling of affection or for other reasons.

It should be remembered that the widow or widower dissatisfied with the provisions of the will of the deceased spouse may elect, through proper proceedings in the Probate Court, to waive the provisions of the will and receive the share in the estate of the deceased to which she or he would be entitled under the statutory right of descent. Also that in the settlement of any intestate estate, or of any testate estate which is insolvent, or in which no provision is made for the widow in the will of her husband, or when she duly waives the provisions made, the Judge of Probate may allow the widow so much of the personal estate besides her ornaments and wearing apparel as he deems necessary, according to the degree and estate of her husband and the state of the family under her care. Sections 14-19 of Chapter 156, Revised Statutes 1954. This is not a legal right but rests solely in the discretion of the Judge and is to be liberally construed. Perkins, Appellant, 141 Maine 137. The statutes should be examined for further and other provisions.

It is well to remember that making a will does not mean that the maker is about to die. It does mean that the maker has given thought to the possibility of early death and to the ultimate certainty. So far as we know, no one can live forever and it is wise and prudent to make provision for the disposition of the estate which we have worked so hard to create, and to see to it that such provision is in accordance with our own wishes and not with the mandates of the statutes.

In making your will, you will first have taken a reasonably careful inventory of your estate as it then exists and probably will exist at the time of your death. You will next determine exactly how you wish to have your estate distributed. Your concern is first with your immediate family and then with your other relatives and, perhaps, close friends. It may be that you will wish to leave certain sums to your church, your fraternal organization, or to your favorite charity.

In making your determination, you must consider several provisions of law which may well have considerable bearing upon the final disposition of your estate.

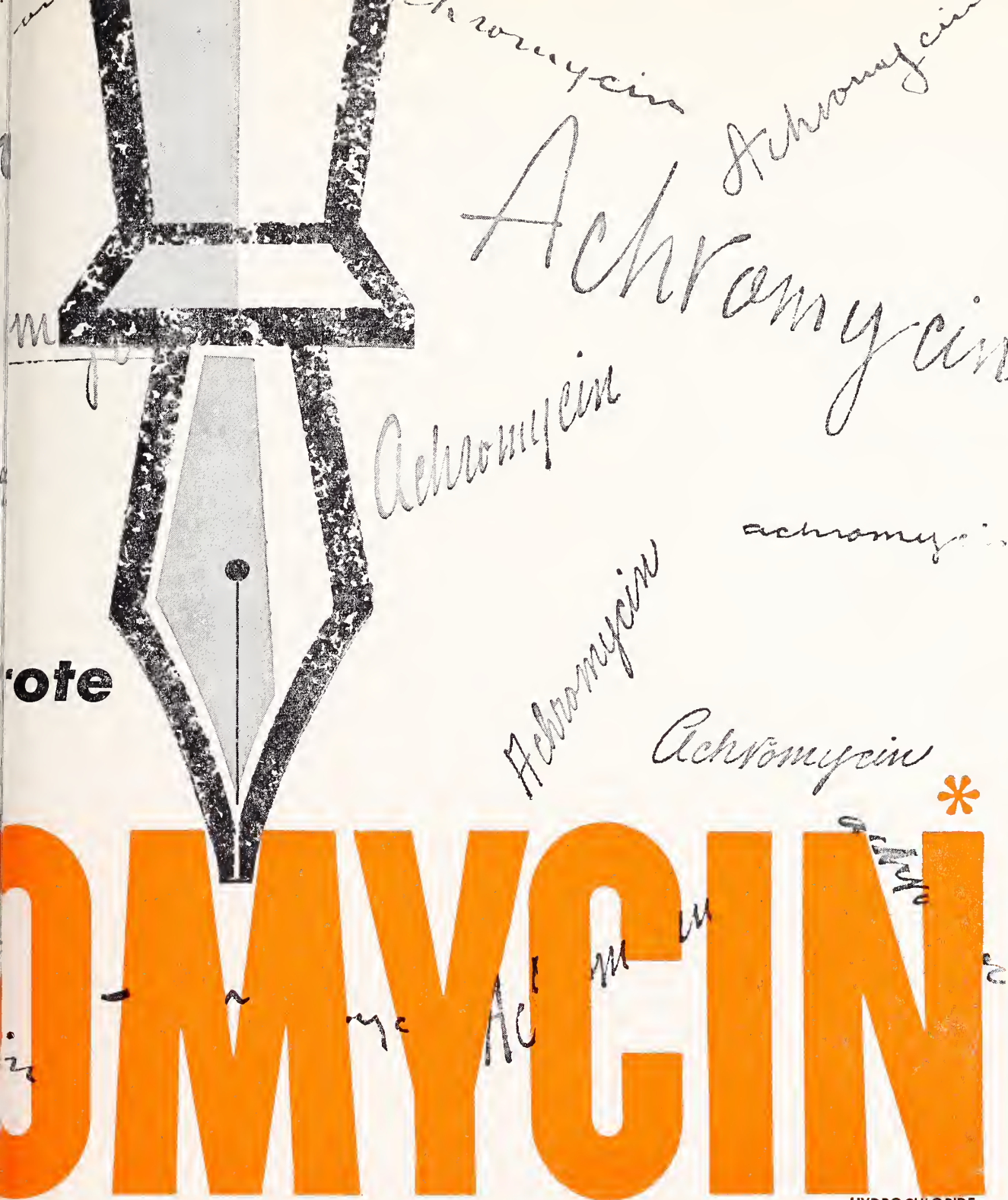
First, you perhaps will consider the simultaneous death act. This will be found in Sections 22 to 29 of Chapter 170 of the Revised Statutes. In general, this act provides that where title to property, or the devolution of property, depends upon priority of death and there is not sufficient evidence that the persons died otherwise than simultaneously, the property of each person shall be disposed of as if he were the survivor. If testamentary disposition of the property depends upon priority of death of designated beneficiaries and there is not sufficient evidence that the beneficiaries died otherwise than simultaneously, the property so disposed of shall be divided into as many equal portions as there are designated beneficiaries and these portions distributed respectively to those who would take in the event each designated beneficiary were the survivor. Likewise where the decedents are the insured and the beneficiary, respectively, in policies of life or accident insurance and there is not sufficient evidence that they died otherwise than simultaneously, the proceeds of each policy shall be distributed as if the person whose life was insured therein survived. However, the simultaneous death act does not apply in the case of wills, deeds or contracts of insurance wherein provision has been made for distribution different from the provisions of said act.

Some wills are so drawn that if the surviving spouse dies within a short period, say two or three months, following the death of the testator, the bequest to the survivor shall not vest but will vest in the remaindermen, if any, or form a part of the residue of the estate. This tends to avoid the necessity of what may be termed a double probate of essentially the same estate within a comparatively short time. In passing, it may be noted that the Federal Estate Tax permits a period of six months during which the bequest to the survivor does not pass. Tax-wise, this may, or may not, be of advantage.

Next, but by no means least, you will consider Federal and state taxes on legacies and estates and the impact of such taxes upon the property of which you die possessed.

The Federal Estate Tax, Internal Revenue Code of 1954, requires, in the case of an estate subject to such tax, detailed and very complicated computations in determining the amount of tax. The Federal Estate Tax only applies to the comparatively large estate, as you will see as we go along.

If the taxable estate is not over \$5,000, then the tax is 3% thereof. If it is over \$20,000, but not over \$30,000, the tax is \$1,600, plus 14% of the excess over \$20,000. If it is over \$50,000, but not over \$60,000, the tax is \$7,000, plus 25% of the excess over \$50,000, and if the taxable estate is over



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\$10,040,000, then the tax is \$1,082,800, plus 77% of the excess over the \$10,040,000. These are only 4 of the 25 steps listed in the tax table, but they serve to illustrate the size of the tax bite.

In order to determine the amount of the taxable estate and of the Federal Estate Tax, the first step is to determine the gross estate, which includes all of your property, real, personal, tangible or intangible, except real property outside the United States. Expressly included are the values of:

- (a) Property transferred in contemplation of death. Any property transferred within three years prior to death is presumed to have been transferred in contemplation of death. The presumption may be rebutted.
- (b) Any transfer of property in which decedent retained a life estate.
- (c) Transfers of property to take effect at death.
- (d) Transfers of property which are revocable.
- (e) Annuities payable to decedent for life and to another after decedent's death.
- (f) Property held in joint tenancy, except such part thereof as the surviving joint tenant can prove was contributed by him.
- (g) Property disposed of under power of appointment.
- (h) Life insurance payable to the Executor and life insurance payable to named beneficiaries, unless, in the latter case, the insured has relinquished all his rights, including any reversionary interest in such insurance in excess of 5% thereof. The practical effect of this provision is that if you wish insurance policies payable to a named beneficiary, other than your Executor, not included in your gross estate, you must relinquish all rights in and to said policies, such as the right to take the cash surrender value, the right to borrow on the policies and the right to change the named beneficiary. You may and probably should continue to pay the premiums.
- (i) Any transfers which you may make for an insufficient consideration. It should be noted that any relinquishment by your wife of any marital right in your property is not a consideration to any extent.

Having calculated the value of the gross estate, there are certain deductions to be made to determine the value of the taxable estate. The first deduction is a straight flat deduction of \$60,000. The next deductions consist of funeral expenses, expenses of administration and in general, but subject to some exceptions, debts owing by decedent at the time of death. The next are losses from casualty not compensated by insurance or otherwise. Then come be-

quests, devises and transfers to public, charitable or religious uses. These include bequests to fraternal and veterans' organizations, provided that such bequests must be used for charitable or religious purposes.

We now come to the so-called marital deduction. In order to determine the amount of the marital deduction, there must first be calculated the value of your adjusted gross estate. To make this determination, there is deducted from the value of the gross estate all of the above-specified deductions, except the \$60,000 deduction and the amounts of public, charitable and religious bequests. The marital deduction may equal but cannot exceed 50% of this adjusted gross estate. Further, no part of the marital deduction may consist of property not included in the calculation of your gross estate.

Under the Revenue Act of 1954, for the first time, a trust for the benefit of the surviving spouse may be created and included in the amount of the marital deduction, but only if the surviving spouse has the complete use of the income thereof and the power of appointment of subsequent beneficiaries of the trust. In such a case, the beneficiary may invade the principal of the trust, or in other words, may require the Trustee to turn over to him or her, as the case may be, such part of the principal as he or she may request in accordance with the terms of the trust, which may or may not permit such invasion, depending, of course, upon the intention of the decedent in the drafting of the trust.

The foregoing is an extremely simplified and undoubtedly wholly inadequate statement of the Federal Estate Tax and its impact. It does, however, give you a very general idea of the method by which the value of the taxable estate is determined. In order to get all of the details, it is necessary to carefully examine the Internal Revenue Code, the regulations thereunder, and such decisions of the courts as have been made under prior Acts and are determinative of the Revenue Act of 1954. Without doubt more court decisions are yet to come.

In the determination of the marital deduction, there are special rules as to an interest in unidentified assets, valuation of interest passing to the surviving spouse and taking into account certain tax effects, special rules involving community property, and certain provisions as to disclaimers by a surviving spouse, all of which are sufficiently complicated to serve no useful purpose in a talk like this.

Now, let us turn to the State Inheritance Tax and Estate Tax, Chapter 155, Revised Statutes 1954.

Remember, we are confining ourselves solely to the laws of Maine.

Generally speaking, all property which is includable in the gross estate under the Internal Revenue Code, with the exception of insurance policies payable to testator's surviving spouse or to his issue, or,

if intestate, such part thereof as descends under the statutes providing for the descent of life insurance, and property passing under a power of appointment, is subject to the State Inheritance Tax. There are exemptions similar to those in the Internal Revenue Code for public, charitable and religious uses and, in addition, there are certain exemptions for benevolent and educational uses and also for the care or maintenance of cemeteries, cemetery lots or structures therein and thereon.

Property passing to persons designated as Class A, namely: husband, wife, lineal ancestor, lineal descendant, adopted child, stepchild, adoptive parent, wife or widow of a natural or adopted son, or husband or widower of a natural or adopted daughter of a decedent, and grandchild who is the natural or adopted child of a natural or adopted child of a decedent, is subject to a tax, in excess of the exemptions, of 2% of such excess as does not exceed \$50,000; 3% of such excess as exceeds \$50,000 and not \$100,000; 4% of such excess over \$100,000 and not over \$250,000; and 6% of such excess over \$250,000.

The exemption in the case of a husband, wife, father, mother, child, adopted child, stepchild, adoptive parent or grandchild who is the natural or adopted child of a natural or adopted deceased child is \$10,000, and for all others in Class A, and for other lineal descendants of remoter degree, is \$500.

The tax on the property passing to persons designated as Class B, namely, a brother, half brother, sister, half sister, uncle, aunt, nephew, niece, grandnephew, grandniece, or cousin, is subject to a tax, in excess of an exemption of only \$500, of 8% if the value does not exceed \$25,000; of 9% of the value over \$25,000 and not in excess of \$100,000; 10% of the value over \$100,000 and not in excess of \$250,000; and 12% of all value in excess of \$250,000.

All bequests to persons in Class C, consisting of others than those in Classes A and B, are subject to a tax, in excess of an exemption of \$500, of 10% of the value not in excess of \$50,000; 12% of the value over \$50,000 and not in excess of \$100,000; 14% of the value over \$100,000 and not in excess of \$250,000; and 16% of all value over \$250,000.

There are provisions for taxes on life estates with remainders over, at the value determined by United States life tables and actuarial tables, at 4% compound interest for the prior estate with the appropriate tax to the remainderman, depending upon his Class, whether A, B or C.

There is an excellent provision to the effect that where it is impossible to compute the present value of any interest in an estate, the State Tax Assessor may, with the approval of the Attorney General, effect such settlement of the tax as he shall deem for the best interest of the State, and the payment of the agreed sum is in full satisfaction of the tax. Execu-

tors, Administrators and Trustees are authorized and empowered to compromise the amount of tax with the State Tax Assessor.

In addition to inheritance taxes, there is an Estate Tax to be assessed by the State Tax Assessor upon all estates which are subject to taxation under the Federal Revenue Act. The amount of this tax is the amount by which 80% of the estate tax payable under the Federal Internal Revenue Code exceeds the aggregate amount of all estate, inheritance, legacy and succession taxes actually paid to the several states of the United States in respect to any property owned by the decedent or subject to such taxes as a part of or in connection with his estate.

I have perhaps gone into too much detail with respect to state inheritance and estate taxes, but my only excuse is that most of us are not sufficiently fortunate, or perhaps unfortunate, to be subject to Federal estate taxes upon our estates. Almost certainly the state inheritance taxes will have their impact.

In connection with the impact of taxes, I want to call your attention to the possibility, and perhaps advisability, of inserting in your will a tax clause which may provide that all estate, inheritance and other taxes levied or imposed on your taxable estate shall be paid from the residue of your probate estate. The tax clause should not be used indiscriminately. For example, suppose a testatrix leaves a diamond ring, valued at \$5,000, to a distant relative. That legacy is subject to tax and it may be a considerable strain upon the legatee to provide the necessary money to pay the tax. On the other hand, in some cases the entire residue of the estate has been completely exhausted by a tax clause.

Remember, that taxes must be paid and it is the duty of the Executor or Administrator to see to it that all such taxes are paid, either from the estate or by the legatee or devisee, even if the Executor or Administrator has to sell real property passing by inheritance or will and subject to a tax from the heirs or devisees entitled thereto.

I would be the first to admit that my attempt to give you a very sketchy outline of Federal and state inheritance and estate taxes must have been dead dry and uninteresting. However, it is impossible to intelligently draw a will or contemplate intestacy without full consideration given to the impact of such taxes upon your estate. The impact may be little or great, but impact there probably will be.

It may be that what I have said will cause you to examine your probable estate and to carefully consider your wishes as to its disposition. You know you can always change your mind. Your estate and your wishes may change. You can always make a new will or you can amend your will by codicil. Whether or not you make a will is for you to decide.

The Journal of the Maine Medical Association

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ACROSS THE DESK

Physicians Held Unready for War

Senator Estes Kefauver said he did not believe the nation's medical profession was "prepared for a thermonuclear war." "It may be prepared for the kind of a war we went through the last time, but I do not believe the medical profession, despite the grave responsibilities which fall on it, is prepared for a thermonuclear war."

A Chance to Get Ready

On September 24, 1955, at the Hotel Statler in Boston, an afternoon and evening course will be given on the care of mass casualties. Sponsored by the Massachusetts Academy of General Practice, this is an excellent presentation of an important problem by a group from the Walter Reed Army Medical Graduate School, Washington, D. C. Your interest is your badge of admission.

Federal Legislation

The 84th Congress has adjourned and many members are at home. Now is an excellent time to reach them. Let them know how you feel about certain legislation . . . and why. Health bills, President Eisenhower reminded a press conference, should be handled as soon as Congress comes back.

Enacted Into Law

Doctor Draft Extension, Public Law 118. Continues authorization for induction of physicians, dentists and allied specialist categories until June 30, 1957. Lowers age ceiling from 51 to 46, exempts registrants 35 and over previously rejected for commissions solely on grounds of physical disability and continues \$100 special monthly pay for volunteers.

First callup under new law is expected early this fall, to fill armed forces' replacement needs for first quarter of next year.

Passed by House

HR 483. Authorizes commissioning of doctors of osteopathy in Medical Corps of Army, Navy and Air Force. Supported by Dept. of Defense. When taken up next year by Senate Armed Services Committee, which has named a 3-man subcommittee to study the matter, will be opposed by AMA. Senators Symington (Mo.), Jackson (Wash.) and Smith (Maine) are the three members of the subcommittee, and the bill is expected to come up for action in January of 1956.

Another Step Toward Federal Medicine

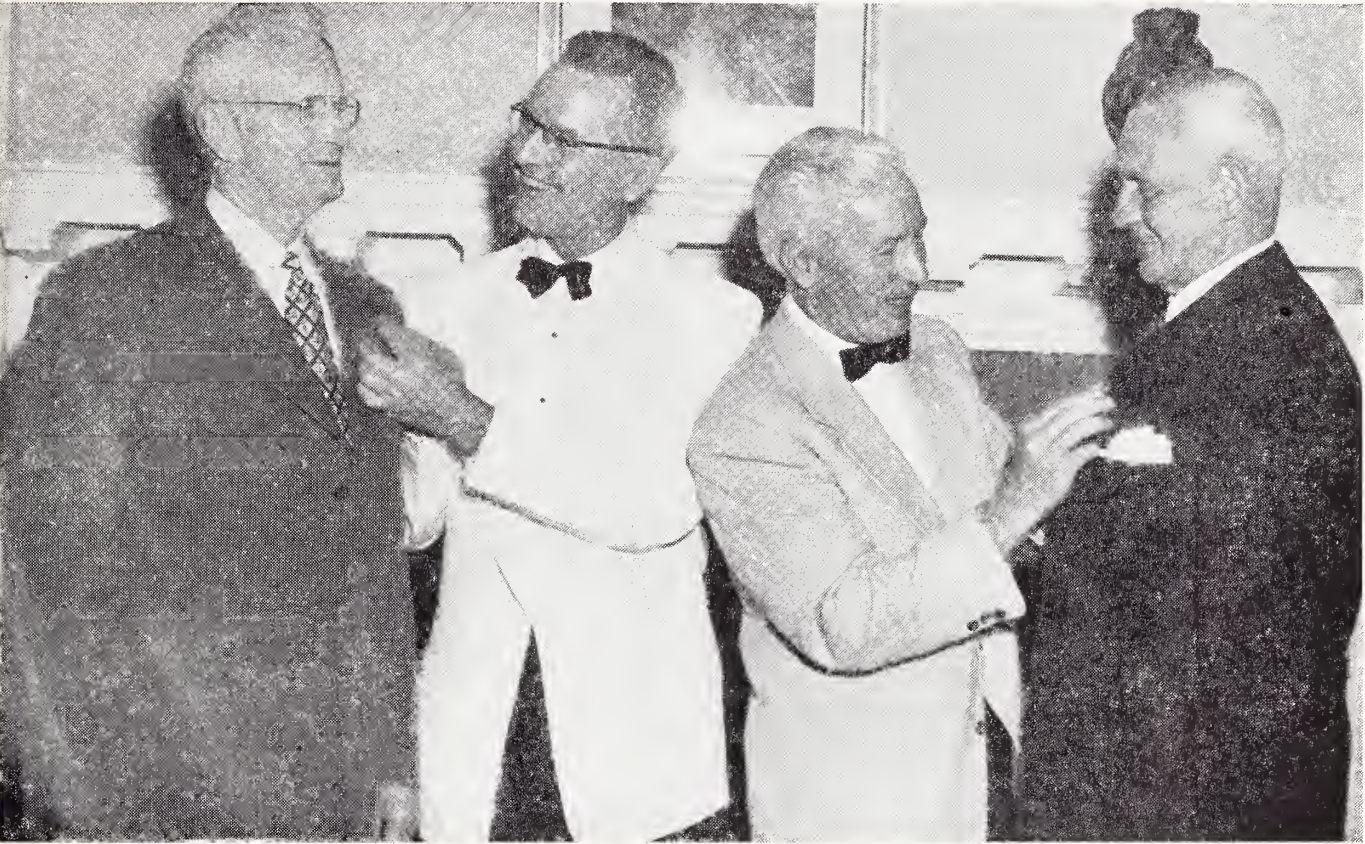
The House of Representatives passed, without public hearings, a bill proposing sweeping revisions in the Social Security Act, including cash benefits to certain beneficiaries who are permanently and totally disabled. While the Senate refused to rush this bill through before adjournment, there is every likelihood that the bill again will be considered immediately after Congress convenes in January. AMA will oppose the bill.

HR 7225. Provides disability insurance benefits for persons aged 50 and over, extends social security coverage to dentists and other self-employed professionals (except physicians) and otherwise liberalizes the law. Senate Finance Committee will conduct public hearings in 1956.

New House Legislation

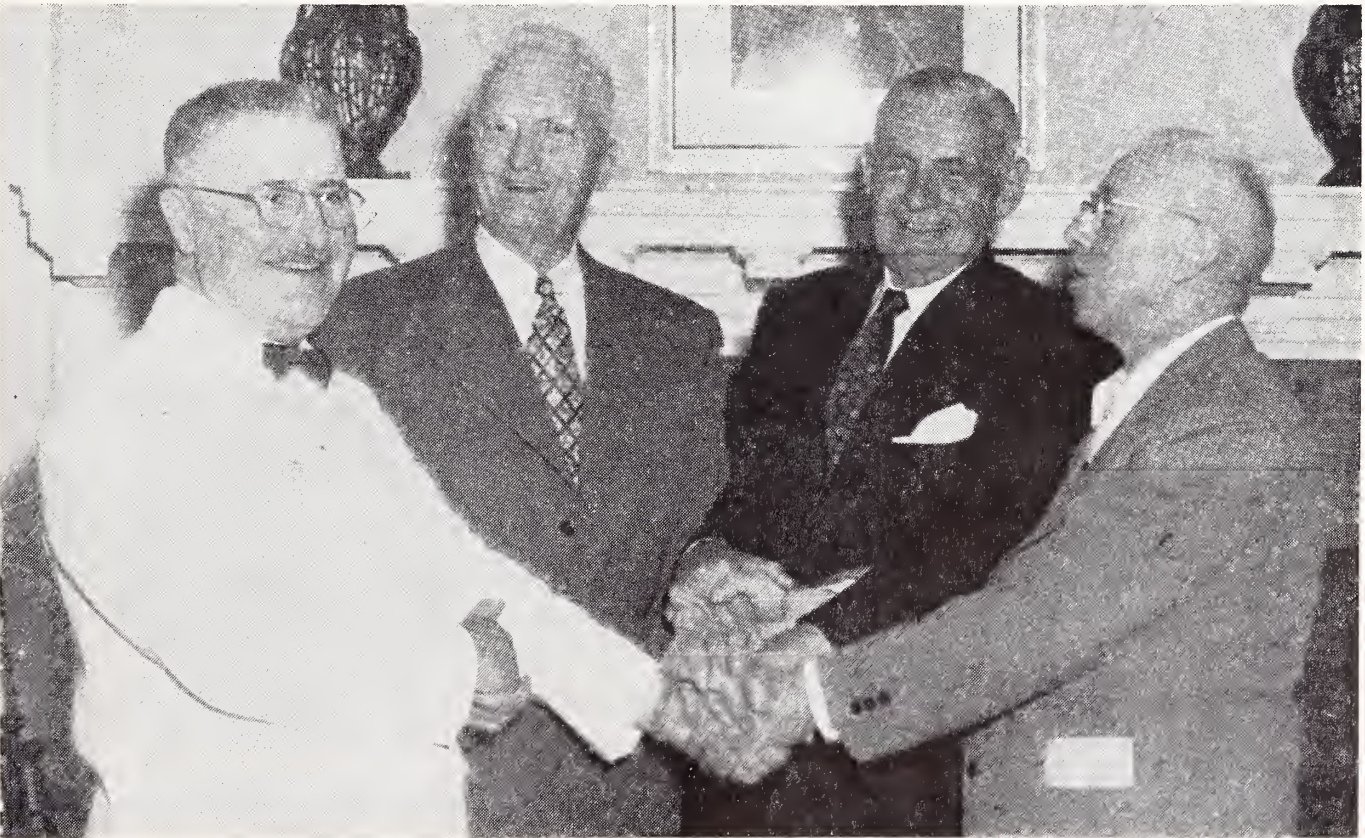
HR 7846 (Multer, D-N.Y., August 2). Federal Scholarship Act. Would authorize loans to enable needy and scholastically qualified students to continue post-high school education, including pre-medical, with a \$5 million federal fund the first year, and \$10 million the second.

Continued on page 268



Rockland in 1955. Among the recipients of the Association's Honorary Lapel Pins at the 102nd annual session in June, were Oscar F. Larson, M. D., of Machias (left), and Clarence R. O'Crowley, M. D., of South Bristol (right). Doing the honors are William F. Mahaney, M. D., of Saco (center left), and Martyn A. Vickers, M. D., of Bangor. In the picture below, the recipients are being congratulated by Armand Albert, M. D., of Van Buren (left), and Norman H. Nickerson, M. D., of Greenville.

Dr. Mahaney was President of the Association in 1954-1955; Dr. Vickers is the present President; Dr. Albert was elected President-elect in June; Dr. Nickerson was President in 1953-1954.



New Senate Legislation

S 2720 (Russell, D-Ga. and Saltonstall, R-Mass.) Medical Care of Military Dependents. This legislation would authorize medical care for dependents of members of the Armed Services. The care would be limited to "diagnosis; treatment of acute medical and surgical conditions; treatment of contagious diseases; immunizations; and maternity and infant care."

A Deplorable Situation Ignored Again

The House of Delegates of the AMA on many occasions has called attention to the deplorable condition of the Armed Forces Medical Library Building in Washington, which has been used continuously since 1887. Resolutions urging the government to erect a new library building were passed in 1933, 1942, and again at the San Francisco meeting in 1954.

Despite the urgent pleas on the part of the AMA, recent plans to appropriate funds for such a building went out the window. And mostly because one Senator, Allen Ellender (D., La.), didn't think much of the idea. Apparently he was guided by the thought that if the world's largest and best library has been housed in the same building for 68 years a few more years wouldn't make much difference.

His feelings were strong enough, apparently, to influence the appropriations committee in turning down \$350,000 to draw up plans and specifications for a new library. At the same time the Agriculture Department got \$500,000 for plans for new animal research facilities.

Infectious Diseases Still Take "Immense Toll"

"Top priority" in U. S. health programs must be given to communicable diseases, because they most frequently attack "the young and vigorous . . . on whom the present and future productive power of the nation depends," a U. S. Public Health Service official said recently.

While "major killers of a half century ago" largely have been controlled, other communicable diseases still take an "immense toll" in death and disability among citizens of the U. S., Dr. Theodore J. Bauer, chief of the U. S. Communicable Disease Center, Atlanta, Ga., said in the August 20 *Journal of the AMA*.

One of every ten deaths is caused by a communicable disease. The situation is "far more serious" in the age group under 35 years, where the ratio is 1 to 4. In the older group it is 1 to 12. In addition the diseases cause the majority of absences from school and work. They also may lead to future disorders of the heart, liver, kidney, nervous system, and other organs.

Public health workers aim toward the control of all communicable diseases, Dr. Bauer said. Control

measures for diseases of today must be developed and research into diseases of obscure origin must continue.

If those "spectacular and dreadful" diseases of the past, such as yellow fever, typhus, and smallpox, are to remain in check, constant watchfulness and effective use of control measures are necessary, he said.

Members of the MMA will soon have an opportunity to give attention to the problem, as the Central Maine General Hospital in Lewiston is sponsoring a refresher course on infections and infectious diseases, to be given by Louis Weinstein, M. D., on eight successive Thursdays, starting October 6. A full description of the course is printed elsewhere in the *JOURNAL*.

Navy's New Medical Student Program

Encouraged by the success of its senior dental student program (and having fallen heir to a bit of idle cash), the Navy's Bureau of Medicine and Surgery will launch this fall a senior medical student plan. To wit: The commissioning of fourth-year students as Medical Corps ensigns, with full pay and allowances. Their sole obligation will be to serve at least one year's active duty following the completion of their internship (exclusive of the two-year duty required of non-veterans by Selective Service). Authority and funds are provided for 100 of these positions. For the first year, appointees will be selected from the ranks of medical students already holding ensign grade in the USNR.

Journal for Residents

Resident physicians are probably the last remaining group of physicians who have had no special journal of their own. Yet the resident has a great many problems which differ materially from those of either the practicing specialist or the intern. To fill this void in medical literature a new *Journal, Resident Physician*, makes its bow with the September issue.

Television News

In a few years time, television has become an important factor in the molding of public opinion. It has an intimacy that cannot be achieved by any other medium of communication—and, at the same time, simultaneously reaches vast numbers of families located in widely scattered sections of the country.

As of July 1, the estimated number of television sets in the United States stood at nearly 36,500,000—an increase of 2,600,000 sets since the first of the year. A total of 406 television stations are now operating in 253 cities. And some individual programs have had audiences as large as 60,000,000 people for one presentation.

Continued on page 276

METAMUCIL® IN BOWEL MANAGEMENT

“Smoothage-Bulk” Restores Normal Peristalsis

The gentle distention of the bowel wall provided by Metamucil® is physiologically corrective in constipation management.

Normal peristaltic movements of the bowel depend on the consistency and quantity of the material within the lumen. In constipation, hypohydration accounts for the hard consistency and inadequate quantity of the fecal mass. With Metamucil, stool quality becomes soft and plastic, while stool quantity is increased to produce gentle distention, the natural stimulus to peristalsis.

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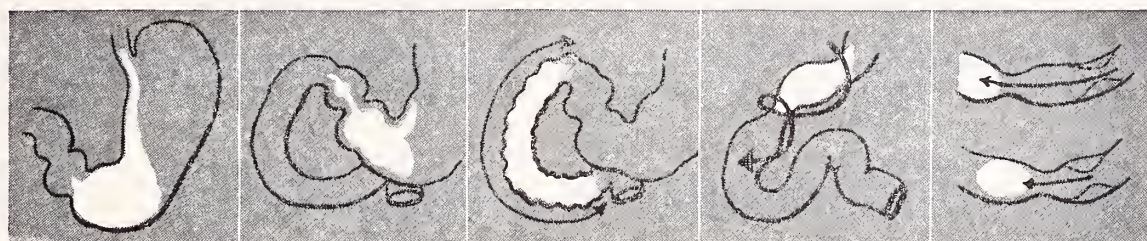
psyllium group, combined with dextrose (50%) as a dispersing agent.

The usual adult dose is one rounded teaspoonful of Metamucil powder in a glass of cool water, milk or fruit juice one to three times daily. An additional glass of liquid may be taken if indicated.

Metamucil is supplied in containers of 1, ½ and ¼ pound.

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TYPES OF MOVEMENT WITHIN THE BOWEL



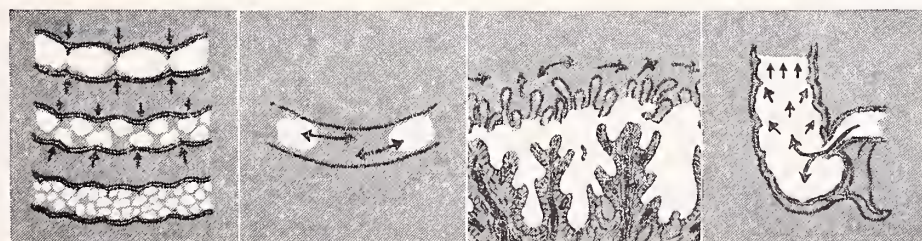
Food Breakdown

Pyloric Dilation

Duodenal Churning

Spiral Propulsion

Rapid: Slow Peristalsis



Kneading Action

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COMING MEETINGS

Massachusetts Academy of General Practice

Fall Clinical Assembly

Saturday, September 24, 1955

Boston, Mass.

Headquarters, Hotel Statler

PROGRAM

Morning Session

Grand Ballroom—Hotel Statler

- 9.00 Office Ophthalmology
Benjamin Bell, M. D.
Chief, EENT Unit, Veterans Administration Out-Patient Clinic, Boston
- 9.20 Influence of Thyroid and Testosterone on Bone Growth
Joseph M. Looney, M. D.
Research Professor of Bio-Chemistry, Boston University School of Medicine
- 9.40 Treatment of Advanced Malignant Disease
Henry M. Lemon, M. D.
Associate Professor of Medicine, Boston University School of Medicine
- 10.00 Recess
Visit the Exhibits in the Ballroom Assembly
- 10.20 Hepatitis in General Practice
Thomas A. Warthin, M. D.
Associate Clinical Professor of Medicine, Harvard Medical School
- 10.40 Present Status of Polio Vaccination
Samuel B. Kirkwood, M. D.
Commissioner of Health, Massachusetts
- 11.00 Office Cardiology
David Littman, M. D.
Chief, Cardiology Section, V. A. Hospital, West Roxbury
- 11.20 Surgical Office Procedures
Richard Warren, M. D.
Associate Clinical Professor of Surgery, Harvard Medical School
- 11.40 The Physician in Relation to the Community Hospital
John F. Conlin, M. D.
Director of Hospitals and Superintendent of Boston City Hospital, Boston
- 12.00 What the New England Chapter, Arthritis and Rheumatism Foundation Has to Offer the General Practitioner
Hans Waite, M. D.
Medical Director, New England Chapter, Arthritis and Rheumatism Foundation
- 12.15 Luncheon. Parlors B and C, Mezzanine, Hotel Statler
Visit the Exhibits
- 1.20 Annual Meeting, Parlors B and C

Afternoon Session

2.00 to 6.00

SYMPOSIUM ON MANAGEMENT OF MASS CASUALTIES

(One point credit toward retirement will be given to all Armed Forces Medical Reserve Officers attending this Symposium)

Presented by the Office of The Surgeon General,
Department of the Army

Chairman: Brig. Gen. James P. Cooney, MC
Deputy Surgeon General, USA

Weapons Effects and the Anticipated Medical Program
Lt. Colonel James B. Hartgering, MC
Chief, Department of Biophysics, AMSGS, WRAMC
First Aid and Emergency Medical Care
Lt. Colonel Joseph D. Goldstein, MC
Chief, Department of Atomic Casualties Studies,
AMSGS, WRAMC

Management of Trauma
Colonel Joseph R. Shaeffer, MC
Surgical Consultant to The Surgeon General,
Office of The Surgeon General, Department of the Army,
Washington, D. C.

Psychological Considerations in Nuclear Warfare
Colonel Albert J. Glass, MC
Deputy Director, Neuropsychiatry Division,
AMSGS, WRAMC

6.15 Cocktail Hour. Ballroom

7.15 Dinner

John R. Fowler, M. D.
President, American Academy of General Practice
Brig. Gen. James P. Cooney, MC
Deputy Surgeon General, USA
Alexander Marble, M. D.
Brig. Gen., Medical Corps, USAR
Clinical Associate in Medicine, Harvard Medical
School

Brig. Gen. H. W. Glattly, MC
First Army Surgeon, Governor's Island, N. Y.

All Physicians Are Invited—There Is No Registration Fee

NOTES

For Luncheon and Dinner reservations, mail your check to Dr. William H. Chasen, 6 Beacon Street, Room 321-23, Boston 8, Mass. Checks should be made payable to the Massachusetts Academy of General Practice. Dinner, \$5.00; Luncheon, \$3.00, tax and gratuities included. Please make reservations early in order that suitable arrangements can be made with the hotel.

For the convenience of the ladies, a suite with maid services will be available at the hotel. Facilities for changing, resting and storing of suitcases and bundles will be available. The suite will be open from 12.00 Noon until after the evening meeting.

CHANGE OF ADDRESS

Maine Medical Association and Journal

As of September 1, 1955, the address of the Maine Medical Association and The Journal of the Maine Medical Association, will be changed from 142 High Street, Portland, Maine, to

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NOTICES

**State of Maine
Board of Registration of Medicine**

Adam P. Leighton, M. D., 192 State Street, Portland,
Secretary.

Physicians licensed to practice Medicine and Surgery in
the State of Maine, July 13, 1955.

Through Examination

Moise M. Abitbol, M. D., Jewish Hospital of Brooklyn, 55
Prospect Place, Brooklyn 16, N. Y.

Askar Askari, M. D., 225 International House, 500 River-
side Drive, New York 27, N. Y.

Ata O. Bakshandeh, M. D., 41-42 Elbertson St., Elmhurst,
L. I., N. Y.

John P. Bergstrom, M. D., 1711 New York Ave., N. W.,
Washington, D. C.

Anneliese M. Bowman, M. D., Pownal State School,
Pownal, Me.

Richard M. Burton, M. D., Albany Hospital, New Scot-
land Ave., Albany 8, N. Y.

Sante Caldarola, M. D., The Springfield Hospital, Spring-
field, Mass.

Patrick A. Carroll, M. D., St. Elizabeth Hospital, Fort
Washington Ave., N. Y.

Mahmoud Chafy, M. D., Mt. Auburn Hospital, Cambridge,
Mass.

Eugene J. Coyle, M. D., 35 Vernon Park, Clontarf, Dublin,
Ireland.

Ruth E. Endicott, M. D., Ogunquit, Me.

Michel Janis, M. D., 314 East 25th St., New York 10,
N. Y.

James S. Johnston, M. D., c/o W. H. Bunker, M. D., York
Harbor, Me.

Eileen J. McManus, M. D., St. Joseph's Hospital, Pater-
son, N. J.

William T. O'Connor, M. D., Medical Center, Jersey City,
N. J.

Patrick T. O'Regan, M. D., Carney Hospital, 2100 Dor-
chester Ave., Dorchester, Mass.

David E. Page, M. D., P. O. Box 5, Steuben, Me.

Antonino L. Pesce, M. D., 1661 Astor Ave., Bronx 69,
N. Y.

Philip J. G. Quigley, M. D., St. Elizabeth Hospital, Eliza-
beth, N. J.

Cesare M. Reyneri, M. D., 75 Hillside Road, Elizabeth,
N. J.

Lambros E. Siderides, M. D., St. Michael's Hospital, 306
High St., Newark 2, N. J.

Joseph D. Sorensen, M. D., Long Island Hospital, Boston,
Mass.

Edward M. Southern, M. D., The Mount Sinai Hospital,
5th Ave. and 100th St., New York, N. Y.

Frederick Swanson, M. D., 30 Red Maple Drive North,
Levittown, N. Y.

Andrew M. Szendey, M. D., 149 Main St., Freeport, Me.

Lawrence C. Webb, M. D., 272 Sabattus St., Lewiston, Me.

Siegfried Gottlieb, M. D., 215-11th Ave., San Francisco,
Cal.

Through Reciprocity or Endorsement

George W. Bostwick, M. D., Central Maine General Hos-
pital, Lewiston, Me.

Joseph R. Crawford, M. D., 113 Northern Ave., Augusta,
Me.

Robert F. Gloor, M. D., P. O. Box 197, Corinna, Me.

Irvin E. Hamlin, M. D., 2745 Share St., Springfield, Ohio.
A. W. Kneucker, M. D., 3001 West 19th St., Chicago 23,
Ill.

Henry F. Kramer, Jr., M. D., 18 Sweden St., Caribou, Me.
James C. Ling, M. D., Worcester County Sanatorium,
Worcester 6, Mass.

Thomas M. Mabon, M. D., 200 Pennsylvania Hall, Uni-
versity of Pittsburgh, Pittsburgh, Pa.

Maurice J. P. Margules, M. D., 119 Hartwell St., South-
bridge, Mass.

Peter J. H. Mason, M. D., Millinocket, Me.

George F. Mock, M. D., Presque Isle, Me.

Gardner N. Moulton, M. D., 5 Grove St., Bangor, Me.

Thomas H. Palmer, Jr., M. D., 30 Blackstone St., Bangor,
Me.

Edmund C. Rup, M. D., Jackman, Me.

John F. Radebaugh, Jr., M. D., 68 Dartmouth St., Bel-
mont, Mass.

Ferris S. Ray, M. D., Maine General Hospital, Portland.
Me.

Stephen Rushmore, M. D., North Bridgton, Me.

Carlton E. Swett, M. D., Wilton, Me.

H. Lin Tung, M. D., Ray Brook, N. Y.

James G. Utterback, Jr., M. D., Box 112, Brewer, Me.

John Van Duyn, M. D., 205 French St., Bangor, Me.

**Postgraduate Educational Program In
Anesthesiology, 1955-1956
Maine General Hospital
Portland, Maine**

The following program of lectures on anesthesiology will
be held in the house officers' quarters from 4:00 P. M. to
5:00 P. M. on the first and third Fridays of each month,
from September 16, 1955, through May 18, 1956. All inter-
ested members of the medical profession are welcome to
attend.

September 16, 1955: Introduction to Anesthesiology.

October 7, 1955: Fundamental principles in general anes-
thesia.

October 4, 1955: Ether and other volatile anesthetics.

November 4, 1955: Physiology of respiration (with motion
pictures).

November 18, 1955: Intravenous anesthesia.

December 2, 1955: Barbiturate poisoning.

December 16, 1955: Spinal anesthesia.

January 6, 1956: Local anesthetic drugs.

January 20, 1956: Useful nerve blocks.

February 3, 1956: Opiates and analgesics, and antagonists.

February 17, 1956: Preoperative evaluation and medication.

March 2, 1956: Autonomic nervous system (with motion
pictures).

March 16, 1956: Analeptics and vasopressors.

April 6, 1956: Hypotensive drugs.

April 20, 1956: The muscle relaxants.

May 4, 1956: Fire and explosion in hospitals.

May 18, 1956: Oxygen therapy and resuscitation (with mo-
tion pictures).

Central Maine General Hospital—Lewiston, Maine
Refresher Course
in
Infections and Infectious Diseases

By Louis Weinstein, M. D.
Chief, Haynes Department of Infectious Diseases, Massachusetts Memorial Hospitals; Associate Professor of Medicine, Boston University School of Medicine.

- Oct. 6, 1955—I. Infectious diseases. Introductory consideration of general physiological reactions of tissues to invading organisms and their products of growth. Spectrum of activity of antibiotics, sulfonamides. Essential laboratory aids in general practice.
- Oct. 13, 1955—II. Infections of the skin, bones and joints, including consideration of the venereal diseases and of deep tissue infections.
- Oct. 20, 1955—III. Infections of the upper respiratory tract, including those of eyes, ears, nose, throat and sinuses.
- Oct. 27, 1955—IV. Infections of the lower respiratory tract, lungs and pleura.
- Nov. 10, 1955—V. Infections of the gastro-intestinal tract and peritoneum, including discussion of pre- and post-operative use of antibacterial agents.

- Nov. 17, 1955—VI. Infections of the genito-urinary tract, including postpartum infections.
- Nov. 23, 1955 (Wednesday)—VII. Infections of the cardio-vascular system, including bacteremia, septicemia, endocarditis, thrombophlebitis and recent concepts in the treatment of rheumatic fever.
- Dec. 1, 1955—VIII. Infections of the nervous system.

The problem of infections in general will be considered in this course of eight separate lectures in a method quite different from the usual textbook approach. Since the physician in practice sees a patient with infection of a part organ or system, this series will be presented from this point of view. All infections will be considered generally as well as regionally, with appraisal of clinical symptomatology, diagnosis, differential diagnosis and use of available laboratory aids. Emphasis will be placed upon proper types of treatment. The selection of medicinal agents to be used, the use and abuse of antibiotics and sulfonamides, with consideration of their effectiveness and complications, will be individually considered. Each lecture will be followed by a general discussion and consideration of questions and problems.

This course will total 25 hours and will be applicable to all medical and surgical specialties as well as physicians in the general practice of medicine. Certification of 25 hours post-graduate medical education will be available upon request following completion of the course. All lectures will be held at the Central Maine General Hospital from 1:00-4:00 P. M. on the dates noted above.

Fee, \$50.00. Registration form may be obtained from the Central Maine General Hospital.

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TUBERCULOSIS ABSTRACTS*

Issued by the National Tuberculosis Association

Sarcoidosis

By Harold L. Israel, M. D., and Maurice Somes, M. D., NTA Bulletin, April, 1955.

Sarcoidosis, although not simply defined or described, resembles tuberculosis more than any other familiar disorder. However, there are important differences which distinguish the two diseases.

The epithelioid cell collections characterizing sarcoidosis take the form of tubercles or granulomas which may infiltrate the lymph nodes, lungs, skin, eyes, bones, liver, spleen, salivary glands, and occasionally the heart, kidneys and nervous system. Sarcoid tissue does not produce toxemia as do most infections and neoplasms; the replacement of normal tissue by myriads of sarcoid tubercles mechanically impairs the function of the involved organ.

Although Boeck first described the sarcoid lesion in 1887, it was many years before the disease was recognized as a systemic one which might involve any organ of the body. The earliest report of pulmonary sarcoidosis in the *American Review of Tuberculosis* appeared in 1933, but it was not until 1937 that Finner's description acquainted most chest physicians with this disease. Since then, many reports on sarcoidosis have appeared. No longer a rarity, sarcoidosis is now one of the diseases most commonly considered in the diagnosis of chronic pulmonary disorders.

It had long been thought that almost all adults were tuberculin reactors. Recognition of the fallacy of this belief, and wider application of the tuberculin test, revealed that many patients with roentgenological and histological findings resembling tuberculosis had negative tuberculin tests. This finding, characteristic of sarcoidosis, led to studies which established a diagnosis of sarcoidosis in many cases.

Widespread X-ray surveys have led to the detection of many patients with diffuse pulmonary infiltrations or much enlarged lymph nodes. Often the chest X-ray appearance is alarming, and on examination one is struck by the patient's relatively healthy condition. Although many times the disability is not proportional to the severity of the roentgenological changes, one must not be misled into thinking that sarcoidosis does not impair health.

Actually, it is uncommon to encounter a patient with this disease who is truly asymptomatic, who has not experienced fatigue and weight loss. Other symptoms depend upon the organs involved; examples are the shortness of breath and cough resulting from extensive pulmonary infiltration, the blurring of vision and even blindness resulting from ocular lesions, and the azotemia which may result from replacement of kidney tissue. Laboratory studies are helpful in directing attention to sarcoidosis. Patients with sarcoidosis as a rule fail to react to second-strength tuberculin, or react weakly. In two-thirds of patients an increase in serum globulin concentration occurs.

A diagnosis of sarcoidosis can be made with confidence in the patient with characteristic organ involvement, negative tuberculin test, elevated serum globulin, and typical epithelioid tubercles in a specimen obtained by biopsy. Pathological study of a biopsy specimen alone cannot "prove" the diagnosis of sarcoidosis. Other diseases, notably tuberculosis, beryllium granulomatosis, and histoplasmosis may reveal a similar histological appearance. In some instances exhaustive study to exclude these diseases is required before the diagnosis of sarcoidosis can be established.

Cutaneous lesions or enlarged lymph nodes suitable for biopsy may not be available. New methods of securing tissue for histological study have been developed; scalenus fat pad and intercostal pulmonary biopsies as well as needle aspiration biopsy of the liver have proven of value in the diagnosis of sarcoidosis. The specificity of the Kveim reaction has not yet been established, and should not be relied upon in clinical practice.

The Scandinavian use of the term "benign lymphogranulomatosis" for this disease and some of the earlier studies have resulted in a falsely sanguine impression concerning the disease. It was considered at one time that, except for the risk of development of tuberculosis, sarcoidosis was almost invariably benign. In recent years tuberculosis has been an infrequent complication, but sarcoidosis has proven a more serious disorder than it originally appeared to be.

Sarcoidosis is fatal in approximately 10 per cent of cases; and many patients experience serious permanent impairment of function as the result of scarring. Approximately half of patients recover spontaneously. Accumulating evidence indicates that in many instances where recovery seems complete, careful roentgenological and physiological studies will reveal considerable residual fibrosis.

A variety of therapeutic agents has been tried in sarcoidosis, but consistent effects have been obtained only with cortisone and ACTH. Their use is recommended only for carefully studied patients with sarcoidosis who have ocular lesions, progressive pulmonary disease, or other disabling symptoms.

The nature of sarcoidosis and its cause have not been determined. It was once widely believed that sarcoidosis was an atypical form of tuberculosis, but few investigators accept this theory at present. Disbelief in a tuberculous etiology of sarcoidosis has been based largely on the rarity with which tubercle bacilli have been demonstrable in sarcoidosis, and pathological characteristics such as differences in frequency of parotid, ocular, cardiac, pleural, and peritoneal involvement in the two diseases. Recent experience indicates that tuberculosis supervenes in sarcoidosis much less often than when there was greater exposure to tuberculous infection.

Certain epidemiological peculiarities of sarcoidosis have been investigated for possible clues to its etiology. A majority of the patients reported in this country have been Negroes. Epidemiological analysis of data from the armed forces, however, indicated that sarcoidosis was more frequent in both whites and Negroes born in the southeastern states, particularly in the rural areas. Sarcoidosis is frequent in northern Europe, and infrequent in South America. These remarkable geographic vagaries would appear an important clue in the search for the cause or causes of sarcoidosis. They suggest either an infectious agent prevalent in certain soils or some constitutional or environmental influence in childhood which later results in an altered response to irritants or infection.

Although histoplasmosis and beryllium granulomatosis may simulate sarcoidosis, it has been shown that these diseases are not factors concerned in its causation. Attempts to demonstrate other fungi, or viruses, have likewise been unsuccessful. It has been suggested that sarcoidosis be classified among the collagen disorders, diseases which appear to represent hypersensitivity reactions. At present it must be concluded that the cause and nature of sarcoidosis are unknown.

Although a relatively uncommon disorder, sarcoidosis has attracted an extraordinary degree of medical interest, inspired to some extent by the obscurity which surrounds the etiology and nature of the disease. Of more importance, however, is the fact that sarcoidosis is an example of poorly understood granulomatous diseases which are more often encountered, as tuberculosis and other respiratory bacterial infections decline in frequency.

Discovery of the causation of sarcoidosis might well cast light on the nature of these diseases. Possibly due to infection, to chemical irritants, to constitutional abnormalities, or to hypersensitivity, sarcoidosis and the other granulomatous diseases may prove to have a hitherto unrecognized type of genesis.

(The printing of Tuberculosis Abstracts is made possible by the cooperation of your local tuberculosis and health association.)

* From Vol. XXVIII, September, 1955, No. 9.

Tumor Clinics

Sisters Hospital, Waterville, Maine, 1st and 3rd Thursdays, 10.00-11.00 A. M., Armand L. Guite, M. D., Director.

Augusta General Hospital, Augusta, Maine, 2nd and 4th Wednesdays, 9.00 A. M., Oakley A. Melendy, M. D., Director.

Maine General Hospital, Portland, Maine, Thursdays, 10.00 A. M., Joseph E. Porter, M. D., Director.

Presque Isle General Hospital, Presque Isle, Maine, Thursdays, 10.00-12.00 A. M., Storer W. Boone, M. D., Director.

Madigan Memorial Hospital, Houlton, Maine, 2nd and 4th Wednesdays, 10.00-12.00 A. M., Joseph A. Donovan, M. D., Director.

Central Maine General Hospital, Lewiston, Maine, Tuesdays, 10.00 A. M., Ross W. Green, M. D., Director.

St. Mary's General Hospital, Lewiston, Maine, Wednesdays, 3.30 P. M., Romeo A. Beliveau, M. D., Director.

Eastern Maine General Hospital, Bangor, Maine, Thursdays, 10.30 A. M., Magnus F. Ridlon, M. D., Director.

Thayer Hospital, Waterville, Maine, Tuesdays, 10.00-11.00 A. M., Irving I. Goodof, M. D., Director.

Across the Desk—Continued from page 267

The medical profession, whether it likes it or not, has become a popular subject for television. Medicine is held up for scrutiny by the TV public dozens of times a month on dramatic shows, newscasts and in educational presentations wherever television stations are in operation.

Five regularly scheduled medical television programs with a combined potential audience of 75,000,000 people each week have been announced for the 1955-1956 season by national TV networks. Reports from motion picture producers indicate that several program series on medical themes are now being filmed for use by commercial sponsors on local stations. And recent surveys by the American Medical Association show that ten state medical societies and 99 county medical societies are currently putting on local TV shows or planning to do so. The five network shows already announced are: "Medic," "March of Medicine," "Dr. Spock," "Medical and Health News with Howard Whitman" (all over the NBC-TV network) and "Medical Horizons" (over the ABC-TV network).

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CORRESPONDENCE

The following letter was received for publication in the JOURNAL, and the author invites comment from members:

"Dear Editor:

"For twenty-five years as an interested observer I have attended the meetings of the A. M. A. House of Delegates. Therefore a group of New England doctors who want the A. M. A. membership to get Social Security on a volunteer basis, have asked me to do what I can to bring this about.

"This past year clergymen were included in this coverage. I have two brothers and two brothers-in-law who are clergymen and I know what a God-send this will be to them and to their families. It will be just as much of a God-send to the countless physicians all over this country who have no large incomes, who have given a lifetime of unselfish service to humanity. These doctors have never been surgeons with large incomes but with many of them the good that they have done, only the angels know. They should not be penalized because of membership in the only profession left out of this bill—not included under Social Security coverage.

"In 1954 a survey was made by Medical Economics which showed that 54% of the doctors of this country were in favor of it. Letters sent out by me and replies recently received from them show that better than 65% of the New York doctors want to be included and 59% of the Arizona doctors.

"Please let me hear from you and write to or in some way contact your Senators and Congressman.

Sincerely,

Adrian H. Scolten, M. D."

BOOK REVIEW

The Modern Treatment Yearbook 1955, published by The Medical Press.

This is the twenty-first annual volume of this English Yearbook of treatment. Thirty-six authors have contributed as many chapters on a variety of subjects—pediatric, obstetric, radiological, psychiatric, and others. Only the first nine are in any way related; these are essays on the use of antibiotics in the different medical specialties. A few chapters are written to survey a subject with references. More are didactic presentations expressing the opinions of the authors with a minimum of controversial material.

A criticism of the material in the book would of necessity have to be made chapter by chapter. There is no unity of content here, but there is an amazing unity of method and approach that runs through the entire volume. Simple methods and nursing procedures are given as much importance as complicated technical maneuvers and the latest drugs. There is a perspective in the book that is lacking in much modern literature and its authors, or editor, have adopted a breezy style that make it exceedingly readable while presenting a great deal of useful information about many things. It is very acceptable reading.

RICHARD S. HAWKES, M. D.



The Journal of the Maine Medical Association

Volume Forty-Six

Brunswick, Maine, October, 1955

No. 10

Heterotopic Pancreas In Stomach Case Report

EDWARD L. FOOTE, M.D.*

HISTORY

Increasing reports in the literature of heterotopic pancreas indicate the importance of this anomaly and it should be considered in pre-operative x-ray and gastroscopic examinations of the stomach. Recognized in the eighteenth century, there have been reports of this condition through the years. Two excellent reviews of the literature appeared during the 1940's, one by Barbosa and his Associates, and the other by Busard and Walters, who collected 543 known cases and added one case. Since then, almost yearly reports occur in the literature.

The lesion was referred to as aberrant pancreas until Barbosa and his Associates used the term heterotopic pancreas. The use of this term has been frequent since that time. Clark suggested the name myo-epithelial hamartoma to include bizarre formations resulting from the ductal pathology. Most lesions have been discovered at autopsy, the incidence of which has been given from .09 to 5.6%. Mayo Clinic reports indicate that it is found in about one in every 500 cases. Recently, more ante-mortem diagnoses are being made and in one series, 25 of 41 cases were suspected clinically. (Barbosa et al.) The lesion appears as a congenital

anomaly. In the developmental stage, portions of the pancreas become separated from the main pancreatic mass, being situated in all layers of the bowel and in the viscera in the upper abdomen. One conception of the anomaly is that it is the result of invagination of the pleuri-potential duct epithelium which results in differentiated pancreatic tissue and its duct-like structures. King & MacCallum assumed a post-natal origin and stated that the rests develop from the bowel mucosa as a result of chronic inflammatory reaction as well as other abnormal stimuli.

Most lesions are without symptoms and about 70% are found incidentally at autopsy or operation. The pancreatic tissue is capable of producing enzymes which may cause ulceration of the surrounding tissue. As a result of this, epigastric distress may occur and even duodenal and gastric ulcer symptoms may ensue. Hemorrhage from the ulceration may occur. Symptoms may vary from a few months to many years in duration. If the mass interrupts peristaltic waves retention symptoms may result. If the anomaly is situated near the pylorus, mechanical obstruction or pyloric spasm may occur. Malignant changes are unusual, but when they occur they produce symptoms of gastric and bowel malignancy. Retention of secretions in dilated ducts may give the symptoms of a cyst.

*Pathologist, VA Center, Togus, Maine.

From The Veterans Administration Center, Togus, Maine.

Most asymptomatic cases are diagnosed at the autopsy table, others as a result of surgical exploration. Pre-operative diagnoses are becoming more frequent. The lesion may be seen in the stomach by gastroscopic examination or may be suspected on x-ray films. However, most x-ray studies are reported negative unless the lesion is kept in mind. Ulceration around the anomaly produces rigidity with accompanying gastritis which can be noted on fluoroscopic examination. When polypoid tumors are seen at operation in the stomach, the diagnosis should be confirmed by frozen section. Symptomatic lesions may stimulate gall bladder and cystic duct lesions. Papanicolaou examination of the stomach contents is usually reported as negative. Heterotopic pancreas should be removed when discovered, even though it is asymptomatic; this will prevent later complications and possible malignant change. If the diagnosis is confirmed at operation, radical resection need not be done.

LOCATION AND APPEARANCE

Aberrant pancreatic rests have been found in most portions of the upper gastric intestinal tract, mesentery, omentum, common bile and cystic ducts, liver and transverse colon. The following are reported as the more common locations: 28% in the duodenum; 27% in the stomach; 15% in the jejunum and 5% in Meckel's diverticula. If discovered in the age groups 4, 5 and 6 decades there is a higher incidence in the stomach.

The pathology varies with the location and size of the anomaly. The shape may be spheroid or oval and it usually occurs singly. The color may be yellow, cream or white. The size varies from a couple of millimeters to the largest reported lesion, which was 6 centimeters in diameter. In the stomach it may project into the lumen as a polypoid tumor due to the fact that the stomach mucosa forms a mound over the pancreatic mass. At the apex of this projection, there may be a pouch with a pseudo-diverticulum in the center of which a small stoma may be present, appearing as a small dimple. Sections of the anomaly usually show the mass to be located in the submucosal region, but it may infiltrate the muscular layer and has been confused with malignancy. The pancreatic tissue is composed of rather normal appearing lobules with acini and duct-like structures. The latter may have a bizarre arrangement becoming cystic and dilated. The pancreatic ducts are usually lined with columnar epithelial cells, the ducts may end blindly in a pouch, but some may open into the bowel lumen. Mucosal ulcerations and inflammation often accompany the lesions. Islet cells of Langerhans' may or may not be present.

CASE PRESENTATION

F. J. B. a 40-year old white, well developed male, was admitted to the hospital with duodenal ulcer symptoms, the duration being 13 years. The symptoms consisted of epigastric burning and gnawing pain. He was

discharged from the Army in 1945 with a diagnosis of "duodenal ulcer". He had been free of symptoms for only brief periods followed by numerous hospitalizations, during which he usually became asymptomatic. However, he continued to have epigastric pain, hematemesis and tarry stools. Eight (8) years after his Army discharge, one x-ray series suggested a gastric ulcer, but subsequent ones demonstrated a duodenal ulcer. He was treated by Probanthine, Cremalin, and brewer's yeast. Burning and epigastric pain continued most frequently when the stomach was empty. Over the years, the symptoms gradually increased in intensity and although he had four different jobs since 1945, he was unable to continue work.

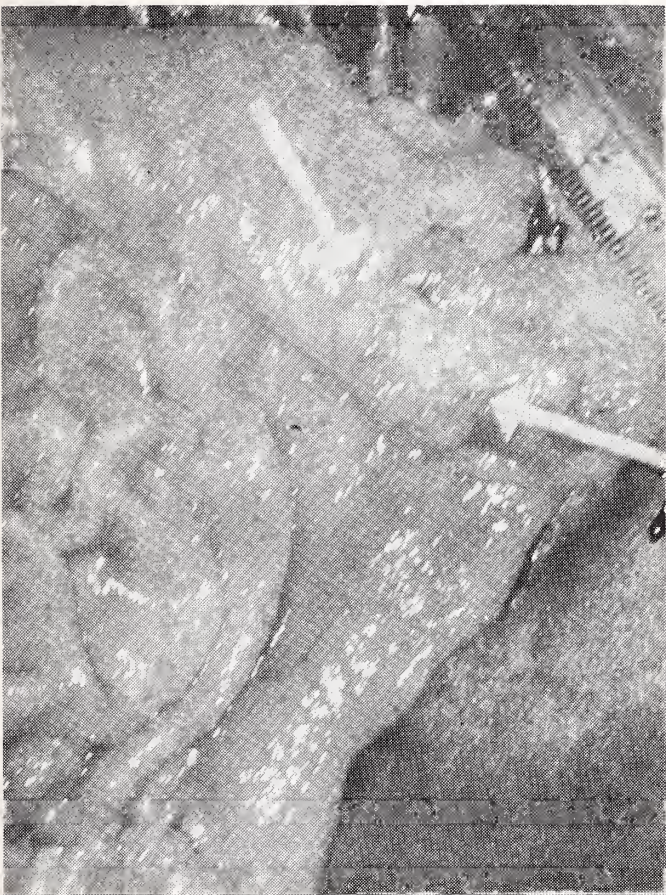
Physical Examination: Showed a well developed and nourished, white adult male, appearing neither acutely or chronically ill. Heart and lungs were normal. Pulse was 80 and regular. There was slight epigastric tenderness. Spleen and liver were not palpable. Remainder of the examination was not remarkable.

Laboratory Data: Urinalysis, negative; serum amylase 25; on gastric analyses free acids ranged from 28 to 100 degrees prior to caffeine, and they averaged 78.5 degrees following caffeine. Hemoglobin was 14.6 gm; hematocrit was 43%; WBC 12,000 with normal differential. Red blood cells were 5,300,000; the platelets 480,000; sedimentation rate was 3. Two stools were negative for blood but one stool later was 1 plus, guaiac. Total protein was 6.2 gms; albumin 4.3; globulin 1.9; BUN was 15 and EKG was interpreted as within normal limits. G.I. Series suggested an active duodenal ulcer.

During the present admission, he complained of epigastric distress and intractable duodenal ulcer symptoms which were not controlled by medical ulcer treatment regimen. For that reason, surgical treatment with sub-total gastric re-section was advised and this was done. An active duodenal ulcer was found at operation.

Surgical Specimen: Consisted of approximately two-third's of the stomach, measuring 18.5 x 7 cm. No conspicuous lymph nodes were noted. The stomach was opened along the lesser curvature and showed a polypoid tumor measuring 1.8 cm. in diameter and projecting for a distance of 1 cm. into the gastric lumen. It was situated 2.5 cm. above the pylorus on the greater curvature. At the apex of the polypoid tumor there was a depressed area .5 cm. in width and .5 cm. in depth. On section an ovoid, yellowish-white mass was found covered by gastric mucosa. The consistency was firm, and the mass was located in the submucosal region; about 1 cm. of duodenum attached did not contain the duodenal ulcer.

Microsection showed a heterotopic pancreas located in the submucosal region consisting of lobules of rather normal appearing pancreatic tissue. It was composed of acini and duct-like structures presenting a bizarre arrangement. The pancreatic cells contained secretory granules. Most of the ducts appeared in a disorderly

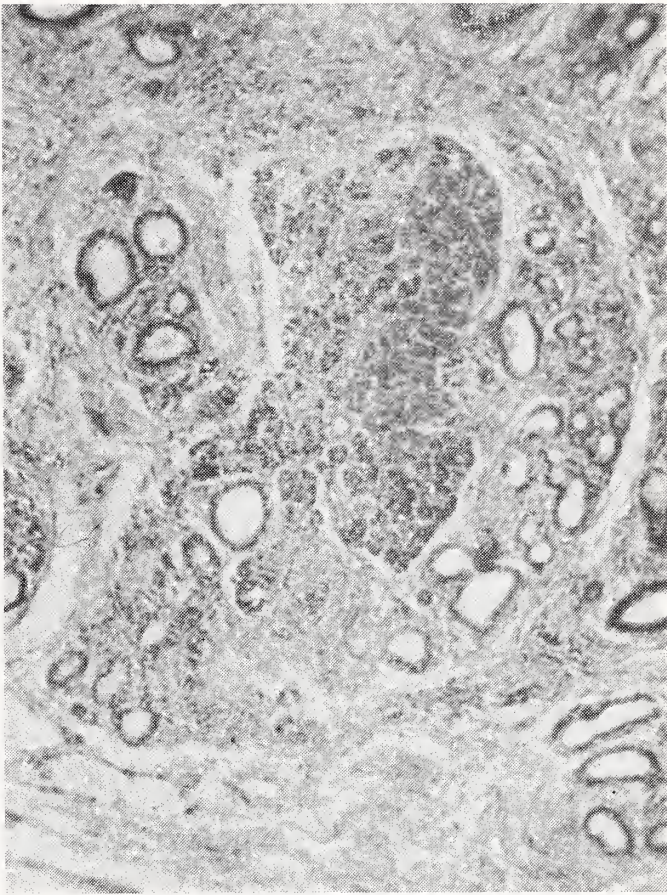


The gross specimen, showing the interior of the stomach with a polypoid tumor near the pylorus in the antral region. There is a depressed area at the apex covered with gastric mucosa.

Pathology Service, VA Center, Togus, Maine

arrangement and were lined by columnar epithelial cells. Some of the ducts were dilated and contained amorphous material. The gastric mucosa adjacent to the anomaly showed a chronic, inflammatory reaction, composed principally of an infiltration of round and plasma cells. No distinct ulceration of the gastric mucosa was noted. Diagnosis — Heterotopic pancreas in stomach.

A case of heterotopic pancreas present in the submucosa of the stomach is presented. This anomaly oc-



Microsection of the Heterotopic Pancreas in the submucosal region of the stomach. It shows normal looking pancreatic tissue with lobules composed of acini. The ducts present a bizarre arrangement.

Pathology Service, VA Center, Togus, Maine.

curred in conjunction with an active duodenal ulcer. It was discovered upon gross examination of the stomach following resection. The anomaly should be differentiated from acute ulceration, leiomyoma and other more serious tumors. The majority of the anomalies are asymptomatic. They should be kept in mind during x-ray diagnostic studies, where they may be recognized pre-operatively. When discovered, diagnosis should be confirmed by frozen sections and the lesion removed to prevent subsequent complications.

BIBLIOGRAPHY

1. Marshall, Samuel P. and Curtiss, Frederick M.: Aberrant Pancreas in Stomach Wall. *Surg. Clin. N. Amer.* June, 1952. Pages 867-875.
2. Benner, W. H.: Diagnostic Morphology of Aberrant Pancreas of the Stomach. *Surgery*, 1951. Vol. 29, pages 170-181.
3. Keeley, J. L.: Intussusception, Associated with Aberrant Pancreatic Tissue. Report of case and review of literature. *Arch. Surg.* 1950, Vol. 60, pages 691-698.
4. Busard, J. M. and Walter W.: Heterotopic Pancreatic Tissue. Report of a case presenting symptoms of Ulcer and Review of recent literature. *Arch. Surgery* 1950, Vol. 60, pages 674, 682.
5. Barbosa, J. J. DeC., Docherty, M. B. and Waugh, J. M.: Pancreatic Heterotopia, Review of literature and Report of 41 authenticated surgical cases of which 25 were clinically significant. *Surg. Gyn. and Obs.* 1946, Vol. 82, pages 527-542, May 1946.
6. Barbosa, J. J. DeC. and Waugh, J. M.: Heterotopic Pancreatic Tissue clinically significant in gastric wall of boy six (6) years of age. *Proc. Staff Meeting, Mayo Clinic*, 1947. Vol. 22, pages 25-30.
7. Clark, B. E.: Myo-epithelial Hamartoma, of G.I. Tract, with report of eight (8) cases. *Arch. Path.* 1940, Vol. 30, page 143.
8. Branch, C. A. and Gross, R. E.: Aberrant Pancreas in G.I. Tract. *Arch. Surgery*, 1945, Vol. 31, page 200.
9. King, E. S. J., and MacCallum, P.: Pancreatic Tissue in wall of Stomach. *Arch. Surg.* 1934, Vol. 28, page 125.

Homologous Serum Hepatitis

FRANCIS A. SPELLMAN, M.D.*

INTRODUCTION

The occurrence in Maine over the past four years of over 600 cases of infectious hepatitis has brought the subject of virus hepatitis rather sharply to our attention. Recent outbreaks in this state have been carefully studied by Ashley¹ who has statistically demonstrated the effectiveness of gamma globulin in reducing the secondary attack rates in infectious hepatitis. The purpose of this discussion is to survey the natural history of a less common type of virus infection of the liver — homologous serum hepatitis, and to report the incidence of this disease due to blood transfusions in a general medical and surgical hospital over a four year period. Methods of prevention will be mentioned since most reviews² have pointed out that homologous serum hepatitis is a hazard not only to patients, but to hospital personnel in general.

Homologous serum hepatitis becomes clinically evident in a patient from sixty to one hundred and fifty or more days after he has received blood or blood products. In contrast the incubation period of infectious hepatitis (IH) is from ten to forty days. Whereas the virus of the latter disease can be recovered from both feces and blood, that of serum hepatitis is found only in blood or its derivatives. Evidence for an antigenic difference between the two strains is found in the fact that only 35 to 40% per cent of proven cases of homologous serum jaundice react positively to Stokes' skin test for infectious hepatitis in contrast to 97% with positive tests in epidemics of infectious hepatitis. Unfortunately this test is not available for clinical use. There is no way of proving whether a given patient has syringe transmitted infectious hepatitis rather than serum hepatitis except from what one may surmise from the clinical history, and incubation period in relation to injections given or administration of blood products.

There is some evidence that occasional patients may remain asymptomatic carriers of SH Virus for years (Berk and Malamut).³

Clinically either type of viral hepatitis is manifested by fatigue, anorexia, distaste for smoking, hepatomegaly, liver tenderness, fever, splenomegaly, dark urine, light-colored stools, jaundice and adenopathy. 30 cases of anicteric virus hepatitis have been well documented by Denber and Leibowitz⁴. Recovery is usually complete by the end of one or two months. The prevailing opinion seems to be that a small percentage of patients will go on to either chronic hepatitis or cirrhosis. For-

tunately this outcome is unusual. In a Veterans Administration Hospital 3 patients out of one hundred with acute hepatitis went on to develop portal cirrhosis⁵.

PLAN OF TREATMENT

Our plan of treatment consists of bedrest, a diet containing 125-150 grams of protein, and high in carbohydrate and vitamins. Dietary supplements such as methionine may be given if desired. The latter drug has been advocated for its possible lipotropic action, but possible beneficial effects are difficult to assay objectively. Wide spectrum antibiotics, serum albumen, ACTH and cortisone are reserved for patients with unusually severe manifestations of the disease, such as impending or actual hepatic coma. The hazards of a high protein diet as precipitants of these states must be considered, and may call for a normal or low protein intake in the patient with severe hepatic insufficiency. According to the literature it is apparently safe to permit ambulation when the serum bilirubin falls below 3 mgs.⁶, and bromsulphalein retention (5 mg./Kg.—45 min. specimen) is below 10 per cent. Exercise before that point is reached may be associated with a significant prolongation of convalescence. Ideal treatment in the past was thought to be bedrest until the serum bilirubin as well as the flocculation tests and BSP had returned to normal levels. However, Armed Forces studies^{6, 7} suggest that ambulation is safe when the patient himself feels well enough subjectively to be up and about at his bedside. A rise in the serum bilirubin and/or BSP occurring with ambulation is an indication for prompt resumption of bedrest. Until further statistics confirm the safety of early ambulation in hepatitis, a conservative point of view in this regard would seem to be in order. Warthin and Dalrymple⁸ feel that although sequelae such as chronic hepatitis are unusual, the occurrence of such complications "may vary with the epidemic or endemic strain of virus, with the treatment, and with the age and nutrition of the population affected". All of these factors must be taken into consideration before the convalescent hepatitis patient is allowed resumption of full activity.

INCIDENCE DUE TO BLOOD GIVEN AT THIS HOSPITAL

In the past 4 calendar years, and during the first three months of 1955, 1432 patients have received whole blood transfusions at this hospital. These patients were given a total of 3202 pints of blood. All cases diagnosed as infectious hepatitis during that time were

* Staff Gastro-enterologist, VA Center, Togus, Maine.
From the Veterans Administration Center, Togus, Maine.

reviewed for possible relationship to injections or administration of blood or plasma. None of these were definitely attributable to blood. During this interval there were 8 definite cases of homologous serum hepatitis directly relatable to blood transfusions from our blood bank. Four cases were found which conceivably could have been related to previous injections or the administration of blood or its products. These were considered too indefinite to add to the above series of 8 cases. Four cases of serum hepatitis were found due to blood given in other hospitals. Thus our incidence of homologous serum hepatitis directly related to blood given in this hospital is 0.55 per cent. One fatal case who received blood is not included in this incidence since he received plasma 18 hours before admission to this hospital for a gunshot wound. No cases of hepatitis occurred in 24 patients who received 38 units of plasma in this hospital.

In general the literature reports a higher incidence of the disease in series in which a large number of the patients have received plasma with or without blood. Up to 20 per cent of the patients receiving plasma early in the Korean Conflict became jaundiced (Allen)¹². Lehan¹⁰ reported a 0.8 per cent incidence of serum hepatitis following transfusions of whole blood. It is of interest that the calculated carrier rate for this virus is from 0.2 per cent to 0.35 per cent². McGraw, Strumia, and Burns reported 910 patients who received transfusions. In this group of 382 patients who received blood alone 1 patient (0.3) per cent developed hepatitis, and "probable hepatitis" occurred in 1.9 per cent of patients who received plasma with or without blood.

DISCUSSION

The present analysis was initiated because of the subjective impression that we were seeing an inordinate amount of serum hepatitis induced by blood received from large metropolitan blood banks. Our statistics fortunately have not substantiated this impression. Although it is reassuring to find that we have a respectable incidence of serum hepatitis, or at least an incidence comparable to other reported series, the cases that we can report, nevertheless, emphasize the need for taking what precautions we can to prevent homologous serum jaundice. During this same interval we have had one case of virus hepatitis in a laboratory worker, and another in a hospital aide. The literature seems to show conclusively that the incidence of homologous serum jaundice is high among hospital personnel¹¹. The virus may enter the body through injuries to the skin or more usually through the inhalation of

powdered plasma. Gellis and Hsia³ suggest the injection of 10 cc. of gamma globulin 3x at monthly intervals in case of accidental inoculation with this virus even though this measure may be less effective in neutralizing SH than IH virus. Since irradiation of plasma from large pools does not satisfactorily destroy the virus, use of single donors is advocated by the authors until better methods of sterilization and storage of plasma are developed. Allen¹² has advocated the safety of using liquid plasma which has been stored at room temperature for 6 months under aseptic conditions. The multiple dose per syringe technique of administering any drug is to be decried, and any instrument used for puncturing the body surface should be sterilized by boiling for twenty minutes or ideally by autoclaving.

CONCLUSION

The natural history, treatment, and prevention of serum hepatitis has been discussed, and the incidence of this entity in a general medical and surgical hospital reported.

REFERENCES

1. Gamma Globulin: Effect on Secondary Attack Rates in Infectious Hepatitis. Ashley, A. *New England J. Med.* 250:412, 1954.
2. Medical Progress: Viral Hepatitis. Gellis, S. S., Hsia, D.Y.Y. *New England J. Med.* 249:400, 1953.
3. Berk, J. E. and Malamut, L.: Personal Communication quoted in Neefe, J. R.: *Viral Hepatitis: Problems and Progress.* *Am. Int. Med.* 31:857, 1949.
4. Denber, H. C. B., and Leibowitz, S.: Acute Anicteric Virus Hepatitis. *J.A.M.A.* 149:546-549, 1952.
5. Koszalka, M. F., Lindert, M. C. F., Snodgrass, H. M., and Lerner, H. B. Hepatitis and its sequelae, including development of portal cirrhosis: Observation on 100 cases. *Arch. Int. Med.* 84:782-797, 1949.
6. Swift, W. E., and others: Clinical Course of Viral Hepatitis, and the Effect of Exercise during Convalescence. *Am. J. Med.* 8:614-622, 1950.
7. Effect of Physical Activity on Recovery from Hepatitis. Nelson, Robert S. Col., Sprinz, Helmuth, Lt. Col., Colbert, James W., Jr., Cantrell, Frank P., Capt., Havens, W. Paul, Jr., Knowlton, Marjorie. *American Journal of Medicine* Vol. XVI No. 6, 780-789, 1954.
8. Subacute and Chronic Hepatitis, Diagnosis and Treatment. Warthin, Thomas A., Dalrymple, Willard. *Medical Clinics of North America.* 36:1341-1355, 1952.
9. McGraw, J. J., Strumia, M. M., and Burns, E.: Incidence of post-transfusion serum hepatitis. *Am. J. Clin. Path.* 19: 1004-1015, 1949.
10. Lehan, D., Kwantes, C. M. S., Upward, M. G., and Thomson, D. R., Homologous Serum Jaundice. *Brit. M. J.*, 2:572-574, 1949.
11. Foreign Letter, Frequency of hepatitis among physicians, *J.A.M.A.*, 150:605, 1952.
12. Editorial, Surg., Gyn. and Obs. Vol. 100 No. 4, 495-497, 1955.

Masked Demerol Addiction

A Case Report

LENA M. ENGLISH, M.D.*

A married veteran about 40 years old arrived at the hospital, after regular hours, with a complaint of worry about his job and of pain in his right side. He said that he had trouble in going to sleep, had nightmares and woke up after three or four hours. He felt depressed and worried over the fact that he could not seem to get ahead. Whenever he owed bills and things were not going well, he felt like "chucking it all" and sometimes he had gone away for days or for weeks without informing his wife or employer that he was going. He admitted that when he returned from service he did not want anybody to tell him what to do. He resented his mother-in-law for her influence over his wife and he was very impatient whenever he did not get immediate attention for anything he wanted.

He related some war experiences and claimed that while he was in service he had pain in his right side with bloody urine for which he had a painful cystoscopic examination and received narcotics. Although he had had three operations and many examinations and treatments, he still had pain in his right side. At times he has felt that it was aggravated by heavy work and long hours.

Following admission to the Neuropsychiatric Service for a service-connected anxiety reaction, a detailed history was obtained from the patient and a psychological evaluation was made. The Social Service Department obtained further information, including abstracts of his records, from several hospitals.

Past History: The patient was the youngest of five children and a "Mama's baby" who was "full of hell" and made a poor pre-service employment record. Soon after service, he married a woman who had waited faithfully for him. His wife refused to go along with his wishes and his mother-in-law upheld her decisions. In a short time, he was hospitalized for pain in his right side and had a ureterolithotomy. During the next year, he lost money in hasty business deals, complained of pain in his right side and worry about business and was given the diagnosis of anxiety reaction with possible conversion reaction.

During the next seven years, he was hospitalized twenty or more times in at least eight hospitals, mostly for pain in his right side. His gall bladder was examined annually for three years and finally removed.

Once, he was thought to have a duodenal ulcer but this was not found on a follow up GI series. During many hospitalizations, he received large doses of narcotics while having cystoscopic examinations, intravenous pyelograms and dilatation of right ureter without relief. He was having anxiety over domestic troubles and was advised to stop treatments as it was felt that he was having more instrumentation and more narcotics than was good for him. A short time later, his right kidney was removed. Twice he complained of chest pain. The first time, the pain appeared to be in superficial muscles only. The second time he complained of cough along with the pain. Chest X-ray was negative. On one occasion, the pain seemed to be a myositis of the right lumbar region. At another time, the pain was thought to be associated with a deeply adherent post-operative scar.

Drug History: Information obtained from records of ten of the hospitalizations revealed that, during these hospitalizations, he received 31 grains of codein, 1/2 grain of morphine, an opium suppository, 390 doses of DEMEROL or a total of 35,925 milligrams, 11 capsules of nembutal, 6 seconal capsules, 14 tablets of phenobarbital and 39 tablets of trasentine.

This veteran has been adept in presenting his complaints and giving his history in such a way that the physician's sympathetic attention was usually directed to search for an organic cause for the pain in his right side. During the search, whenever he did not receive demerol as often as he wanted, he would cry, moan and curse the personnel. Whenever the examinations and treatments were about completed and his chances of continuing to receive narcotics seemed poor, he would ask for discharge on some pretext. When he did not receive a hypo as soon after admission as he wanted, he has been known to walk out.

This man realizes that he married too quickly after he came home from military service and that he was not ready for the responsibility. He admitted that he has been going on alcoholic binges every few months and that he gets pains after vomiting (alcohol) and sometimes imagines pains.

During psychological testing, the patient talked readily about himself, used a pretentious vocabulary and tried to make a good impression. He resorted to guessing rather than to admitting ignorance. He appeared impulsive and was not critical of his own performances. He described himself as "the baby of the family". Appar-

*Staff Psychiatrist, VA Center, Togus, Maine.

From the Veterans Administration Center, Togus, Maine.

ently he has been unable to assert himself and probably resented demands made of him.

Dynamics: This man was a "Mama's baby" who apparently did not learn to be self-reliant and to take responsibility in his youth. He was dependent on his mother and then on the Army and has gotten along thus far on the sympathy of his employer and others. His impulsive attempts to assert himself in a sudden marriage and in hasty business deals and his comparison of himself with his successful siblings have no doubt caused considerable anxiety. He has tried to handle his anxiety by drinking, by narcotics and by running to hospitals where he can be cared for by nurses (mother substitutes). He continues to capitalize on his war experiences, complaining of pain in his right side, and thus creating sympathy. He covers up his anxiety-producing deficiencies with a physical illness and he receives monetary gain as well.

Diagnosis: Anxiety reaction with symptomatic alcoholism and drug addiction, especially to Demerol, was the diagnosis made.

Treatment: This patient demonstrates the futility of treating symptoms instead of the total individual. Even after three operations and many treatments for "pain in the right side", he continues to have pain. He taxes the skill and patience of physicians who have to treat

him repeatedly. He still evades facing facts and seeking a constructive solution.

This case is reported after reading an article by Rasor and Crecraft on Addiction to Meperidine hydrochloride (DEMEROL) which appeared in the Journal A.M.A., February 19, 1955. This patient comes in the age group mentioned in the article. DEMEROL has been the chief narcotic which this patient has received during the last five years and seems to be a "secondary addiction." He has received it for anxiety, for alcoholic hang-over, post-operative pain, chest pain and for pain thought to be connected with his urinary tract. He has had multiple surgical procedures.

According to the article mentioned, only one-third of the DEMEROL addicts admitted to USPH, Lexington, Ky. have remained for the completion of their course of treatment in a "drug-free" environment. Prevention of addiction in other patients by realizing the addictive qualities of DEMEROL is perhaps as much as one can hope for.

CONCLUSION

A case has been reported which points out how a train of physical symptoms resulting in numerous expensive periods of study in various hospitals have eventually been shown to be primarily a means of acquiring medication in the form of demerol upon which this patient obviously became dependent, if not truly addicted in the most strict sense of the word.

Off To Boston

Quaint old Boston with its crooked streets and historic landmarks familiar to every American schoolboy has much to offer physicians and their wives planning to attend the AMA's ninth annual Clinical Meeting November 29 to December 2. An outstanding scientific program covering all phases of medicine — including lectures, roundtable discussions, color television and motion picture films — has been lined up for AMA visitors. In the Scientific Exhibit leading authorities from all over the country will be on hand continuously throughout the four-day meeting to answer questions and dis-

cuss problems with doctors. The Technical Exhibition will feature the latest developments in equipment, books and pharmaceuticals.

This year's meeting promises to be one of the largest Clinical Sessions on record. Both the Scientific and Technical Exhibits will be held in the Mechanics Building, and the House of Delegates will meet at the Statler Hotel. Arrangements are being completed to make this session a worthwhile post-graduate medical education "course." Plan now to attend!

Electrodiagnosis

LEON R. BURNHAM, M.D.*

INTRODUCTION

Information derived from stimulating a muscle with an electric current depends on the fact that a current of suitable strength and duration passing through a muscle will cause it to contract.

The amplitude or strength of contraction depends upon the intensity of the current, the duration of its passage, and the condition of the muscle.

Systematic studies of these variables and their relationships under various conditions have been made and valuable techniques evolved. Some of these are discussed below.

REACTION OF DEGENERATION

The characteristic electrical changes in lower motor neuron lesions are known as the "Reaction of Degeneration". This may be mild, severe or complete depending upon the severity of the injury. Since ten or fourteen days are necessary for nerve degeneration following an injury, it is important to wait this long before conducting such examination. In mild partial reaction of degeneration, faradic stimulation of the nerve requires more current than normal. Galvanic stimulation of the nerve and muscle remain normal. In severe partial reaction of degeneration, faradic stimulation of the nerve causes no contraction while galvanic stimulation of nerve and muscle remain normal. In complete reaction of degeneration, faradic stimulation of the nerve gives no response. Galvanic stimulation of the nerve likewise gives no response; however, galvanic stimulation of the muscle will give a vermicular or wormlike contraction.

The classical galvano-faradic method of testing is easily comprehensible and the apparatus simple and inexpensive. The technique, however, requires well-grounded knowledge of the anatomy and physiology of the nerves and muscular system as well as time and patience. It is the most important test for recognition of gross changes in the electrical response of peripheral nerves and muscles. It is, however, insufficient for exact measurements of the degree of changes and for definite measuring of prognosis or further degeneration. The strength of the ordinary faradic current is not measurable at all and the length of each impulse varies not only in different coils but even in the same coil. Faradic response, moreover, has no prognostic value because in a paralyzed muscle, full power frequently returns before

faradic response. Although the strength of the galvanic current can be measured, its duration of flow is not measurable by simple measures. Newer methods overcome the limitations of the simple faradogalvanic tests through testing by condenser discharges and measuring chronaxie. These methods allow more accurate charting of results.

RHEOBASE AND GALVANIC TETANUS RATIO

One of these methods is by determination of *rheobase* which is defined as the threshold, direct or galvanic current flowing for infinite time produces a twitch. Erb's original description refers to an original rise in rheobase during degeneration and then a fall. The degenerated muscle becomes hyperirritable to galvanic current of long duration and responds with a slow, wormlike contraction. Erb considered this most constant and characteristic in degenerated muscle. Tetanus may be obtained by using the galvanic or direct current of 3 to 5 times the rheobase. The ratio between rheobase and galvanic tetanus threshold is called *galvanic tetanus ratio*. If the rheobase is obtained with currents of $\frac{1}{2}$ seconds duration, the tetanus threshold is determined by allowing the current to flow $1\frac{1}{2}$ seconds. The threshold for galvanic tetanus has been taken to be that point at which the muscle remains in tetanus for the $1\frac{1}{2}$ seconds the current flows. Early in degeneration, the galvanic tetanus ratio increases and then decreases so that as denervation approaches the threshold for rheobase and tetanus are practically in unity. A galvanic tetanus ratio of one is an electric and absolute sign of denervation. The earliest sign of regeneration is an increase of galvanic tetanus threshold and ratio.

CHRONAXIE

Chronaxie is the time in milliseconds at which twice the rheobase current is effective. The normal value of chronaxie is less than 1 millisecond. Early in degeneration, there is a lengthening to and usually over 20 milliseconds. It may then decrease before denervation. It lengthens during denervation and remains its longest then. During regeneration, chronaxie usually shortens but it may be a late sign compared to the increase of galvanic tetanus ratio. When chronaxie becomes less than 10 to 14 milliseconds, it is considered prognostic for recovery. Again, galvanic tetanus ratio is a better and earlier sign than decrease in chronaxie.

*Chief, Physical Medicine and Rehabilitation Service.
From the Veterans Administration Center, Togus, Maine.

STRENGTH DURATION CURVES

This method of electrodiagnosis depends on the difference in excitability between muscle and nerve. A long duration impulse is applied to the muscle under test and the amount of current required to elicit minimal contraction (*rheobase*) is measured and expressed in milliamps or volts. The duration of the impulse is progressively shortened and the intensity of current required to produce minimal contraction measured for each duration. A curve relating strength of current and duration of impulse can now be drawn. In normally innervated muscle, the intensity of current for minimal contraction is the same over a wide range of pulse durations and has only to be increased when very short pulse durations are used. This is due to the great excitability of nerve which has a short chronaxie. When muscle alone is being stimulated (i.e., denervated muscle), the curve is no longer a horizontal, straight line but a steeply rising parabola and no response is elicited at the shorter pulse durations. This is due to the much lower excitability of muscle compared with that of nerve. During recovery (i.e., partial innervation), the curve is broken showing elements of both excitable tissues, muscle and nerve. The use of strength frequency stimulator depends on the fact that muscle responds best to low frequencies and nerves to higher frequencies. The characteristic strength duration curves of denervated, recovering and normal muscle have been well-described in the textbooks.

ELECTROMYOGRAPHY

A less well-known method uses direct examination of muscle by electromyography. Here the potentials accompanying muscle contracture are picked up by needle or surface electrodes, amplified and displayed on a cathode ray screen. They are also relayed through a loudspeaker. Normal motor unit potential is a smooth, diphasic wave of duration of 5 to 10 milliseconds with amplitudes up to 2 millivolts. Monophasic

and triphasic normal potentials are also seen. The characteristic potential found during recovery from lower motor neuron lesions is a complex polyphasic wave of much longer duration and making a harsh, grating sound in the speaker in contrast to the smooth, booming sound of a normal potential. Very short duration complex potentials have been described as the earliest signs of re-innervation.

Denervated muscle fibers have the property of spontaneous rhythmical contraction and the potential so produced can be picked up by the electromyograph and are seen as spikes of low amplitude and short duration (1 millisecond) recurring at a regular rate and making a high-pitched clicking sound in the speaker. They are seen at rest and are an absolute indication of denervation.

It has been recognized for some years that both the strength duration curve and the electromyograph will indicate the presence of re-ennervation some time before clinical recovery is obvious. A good clinical myograph is, however, a large and expensive piece of apparatus requiring considerable experience for its proper use; whereas an electrical stimulator is portable, relatively cheap, and the technique and interpretation of strength duration curves can be learned quite easily. It is therefore valuable to know the relative merits of each.

REFERENCES

1. Golseth, J. G., and Huddleston, O. L.: Electromyographic Diagnosis in Lower Motor Neuron Disease. *Archives of Physical Medicine and Rehabilitation*, 30:495, 1949.
2. Golseth, J. G., and Huddleston, O. L.: The Use of Electromyography in the Diagnosis of Neuromuscular Disorders. *Archives of Physical Medicine and Rehabilitation*, 31:373, 1950.
3. Hirschberg, Gerald G., and Abramson, Arthur S.: *Archives of Physical Medicine*, 31:576, 1950.
4. Huddleston, O. L. et al: Diagnostic Features of Electromyography. *Archives of Physical Medicine and Rehabilitation*, 32:579, 1951.
5. C. B. Wynn-Parry: Electrodiagnosis. *Brain*, June, 1953.

Chemotherapy Of Blood Dyscrasias*

JOSEPH H. BURCHENAL, M.D.

Professor of Medicine, Sloan-Kettering Division, Cornell University Medical College

With a better understanding of the fundamental nature of leukemia leading to the removal of mysticism from our concepts of this disease, the outlook for the future control of leukemia becomes much brighter. Most of us now regard leukemia as a form of cancer. Our knowledge of the subject may be compared to our understanding of an infectious process. We might say of cancer that Koch's postulates have been fulfilled. The cancer cell can be considered the causative organism. It can be isolated and grown in tissue culture. It can be successfully transmitted to animals as is demonstrated by transplants grown in the cheek pouch of hamsters and in the chorioallantoic membrane of chicks and it has been transplanted back into the original patient. Another similarity to infectious processes is the ability of the causative agent to develop resistance to various chemotherapeutic agents.

The tree of cancer knowledge has its roots in Biology and Medicine. The branches which are now developing are those of Prevention, Diagnosis and Therapy. Our particular interest has been primarily in the last group, that of therapy. The therapy of cancer can be divided into three main groups, surgery, radiation and chemotherapy viz., cell poisons, hormones and antimetabolites. Included in the group of cell poisons are such agents as arsenic, urethane, nitrogen mustard, triethylene melamine (TEM), triethylene phosphoramide (TEPA), and diethylene phosphoramide (DEPA). Included among the hormones are androgens and estrogens as used in the treatment of cancer of the breast and prostate and the adrenal corticoids used in the therapy of leukemia. Among the antimetabolites are included the purine derivatives and the folic acid derivatives. The study of antimetabolites is of basic importance because of the experimental evidence that by the use of such compounds, alone, in combination, or sequentially, to block specific metabolic pathways, the cancer cell may be differentially damaged and the normal cell spared.

Because of the promising results obtained with some of these materials, the chemotherapy service of the Memorial Center has tested fifteen thousand compounds, the chemical structure of which is unknown. These test materials have been submitted from all over the world.

The method of testing these various materials might be compared with a set of three sieves of graded meshes. The first sieve with a coarse mesh is the laboratory screening of the chemicals in which the material to be tested is injected into mice with tumors, leukemic mice, chick embryos and tissue cultures and the results compared with controls to which no chemical has been added. Chemicals which appear to have some promise as a result of this initial screening pass to the second sieve with medium mesh, the initial clinical screening. This is essentially a pharmacological study in which the drugs are administered first to dogs to establish the maximum tolerated dose and then to patients who are very carefully studied to determine pharmacologic side effects as well as effects on hematopoietic system and blood chemistry. The third sieve of fine mesh is the practical assessment in relation to other methods of treatment.

CHRONIC MYELOCYTIC LEUKEMIA. The average survival time of an untreated patient with this type of leukemia is three and one half to four years. Treatment has not appreciably increased the survival time of these patients but has tremendously increased the useful survival time. Many patients who without treatment would be invalids are able to keep at their jobs, feel well and contribute to society. A variety of substances are of benefit in this disease. Fowler's solution has been used with some success since 1865. It frequently produces nausea in the patient. Benzene has been used for some time but is generally considered too dangerous because of its severe effects upon the bone marrow. Urethane, either in a 25 percent solution or in enteric-coated tablets has been used since 1946. It frequently produces nausea and vomiting and has been feared by some because of the possibility of its producing hepatitis. Nitrogen mustard has been shown to be effective but this drug must be given intravenously. It sometimes produces venous thrombosis, frequently produces nausea and vomiting and may produce a severe bone marrow depression. It is not recommended for the treatment of leukemias. Triethylene melamine (TEM) has been used successfully as has also triethylene phosphoramide. Either may produce a marked depression of the bone marrow. The probable drug of choice in chronic myelocytic leukemia is "Myleran" (1, 4-dimethane sulphonylbutane). This drug can be given by mouth and is absorbed with considerable regularity. There is no nausea or vomiting. The usual dose is 4 to 6 mg. daily by mouth. 6-mercaptopurine is very

* Abstract of address presented at 1955 annual session of the Maine Medical Association.

effective in the early stages of the disease and has been used with some success in the terminal acute stage.

Chronic lymphocytic leukemia has about the same survival time as chronic myelocytic leukemia. Localized radiation of enlarged nodes may give an excellent response. Triethylene melamine (TEM) is also useful. Lympholeukosarcoma occasionally responds well to the mustards. The acquired hemolytic anemia which frequently complicates chronic lymphocytic leukemia may be treated with ACTH or cortisone.

The acute leukemias may be grouped together. The greatest real progress has been made in the chemotherapy of this group. In this disease the marrow is replaced by immature blast cells and the lack of megakaryocytes in the bone marrow leads to bleeding; the lack of erythroid precursors leads to anemia; and the lack of adult cells of the myeloid group predisposes to infections. There are three classes of chemotherapeutic agents which have yielded some success in this disease which, without therapy, is associated with only a 5 per cent survival at the end of one year. The first class of chemotherapeutic agents is the group of folic acid antagonists among which may be mentioned Aminopterin and A-methopterin (Methotrexate). Their effect appears to be associated with an interference in the synthesis of nucleic acids and they are particularly useful in the acute leukemias of childhood. The second class is the purine antagonists of which 6-mercaptopurine is the best known example. Two new drugs in

this group are thioguanine and 6-chloropurine. They have no advantage over 6-mercaptopurine. The purine antagonists are more successful also in children but will also produce remissions in adults although with less frequency than in childhood. The third class consists of the steroids, ACTH and cortisone. Their effect is rapid whereas it takes three to eight weeks to demonstrate the effects of the folic acid and purine antagonists. Consequently if the patient has severe bleeding treatment should be started with the steroids. Sequential use of drugs from these three classes in the treatment of acute leukemia offer great hope for these patients. Of 218 patients without treatment, only 5% survived one year. Of 154 patients who were treated with cortisone and/or A-methopterin 29% survived one year. Of 100 patients who have received A-methopterin, cortisone, and 6-mercaptopurine 47% have survived one year. Antibiotics are also given whenever necessary for the treatment of intercurrent infection. The use of chloromycetin should be reserved for those patients who have developed infections due to a staphylococcus which is resistant to the broad-spectrum antibiotics. On the other hand if the patient is in relatively fair condition, longer remissions can be expected from the antimetabolites.

It is hoped that by prolonging the lives of these children with acute leukemia, some of them may survive long enough to benefit by future discoveries in this field.

New Booklet On Indigent Care Plans

Current information on 18 representative state and local indigent care plans will be included in a booklet published this fall by the AMA's Council on Medical Service. To learn where organized indigent medical programs were operating successfully and to determine the characteristics of such programs, the Council's Committee on Indigent Care began a study in 1952 of 11 communities and seven states in various sections of the country. Early in its work the Committee developed "Guides for Evaluating Indigent Medical Care Plans," which were used as criteria for judging the selected

programs. Periodic reports have appeared during the past three years in the *Journal of the AMA*.

The new booklet will contain both the "Guides" and reprints of the following studies: (1) state plans — Rhode Island, New York, Pennsylvania, Maryland, Illinois, Washington and North Carolina; (2) local plans — Buffalo, N. Y.; Madison, Wisc.; Newark, N. J.; Topeka, Kan.; Gary, Ind.; Cheyenne, Wyo.; Great Falls, Mont.; Des Moines, Ia.; Richmond, Va.; Evansville, Ind., and Fort Wayne, Ind. Copies are available on request from the Council.

Defective Delinquency In Maine†

PETER W. BOWMAN, M.D.*

A discussion regarding delinquency raises immediately the question as to the definition of the term. It seems that it is generally limited to juvenile delinquency and defective delinquency. It is often applied to misdemeanors and minor offenses committed by children or adolescents. More recently such major crimes as first and second degree murder, manslaughter, robbery, etc. have been publicly termed "delinquency" if the defendant was an adolescent.

To the Psychiatrist the term "delinquent" is highly unsatisfactory since it suggests merely a violation of the law without any definite indication of motivation, circumstances, medical and psychiatric diagnosis.

This is particularly true where the so-called defective delinquents are concerned. While many national and international professional, civic, and religious groups have dealt with the study of juvenile delinquency, relatively little attention has been given the defective delinquent.

A number of authors have studied the history of defective delinquency, or reported about the legal problems such as definition of the term, propriety of commitment, draft of laws to dispose of the patients in this classification into reformatories, prisons, reform schools, etc., or advocate the construction of a separate institution for defective delinquents on a State or Inter-State basis.

Many of these papers reflect an acute anxiety about and an intense rejection of the defective delinquent which becomes understandable only if one realizes how mid-century resources of medical and psychiatric principles seem to have failed to define and to integrate the problem of defective delinquency in either penology or psychiatry.

The activities of the so-called incorrigible mentally retarded persons confront administrations and staffs of our understaffed and inadequately equipped State training schools and hospitals with problems of considerable proportions and consequences. Also, they often represent an unsolved legal problem to prosecution, defense, and judge. Their behavior, their activities might become a disturbing element to the public schools and other community agencies. They easily involve the family physician who is expected to give advise and help.

There is a rather common dissatisfaction with the status quo. The need for more adequate and definite consideration of the problem is agreed upon. The difficulties to achieve such progress are generally appreciated and seem to have resulted in fatalistic stagnation in some instances. Very few authors like Benda, Farrell, and Chipman, go far enough to provide us with inspiring leadership, and constructive recommendations.

If we attempt to define the "defective delinquent" we will have to admit that in this State there is but one common denominator, namely, the commitment by a Municipal Court in contrast to the Probate Court commitment of all other patients to Pownal State School. The term is further limited by the fact that defective delinquency legally does not exist in this State beyond the age of 17.*

The difference in the legal procedure might permit us to classify patients accordingly for administrative or statistical purposes. It does not give us any insight, however, into the symptomatology of social, emotional, and medical causes of delinquent behavior, nor does it provide us with objective evidence of the factual presence, the degree and the consistency of the delinquent factors.

This is a most disturbing situation in those States where commitment under the defective delinquent law is tantamount to life confinement in a correctional institution. Fortunately this is not the case in the State of Maine.

At any rate we wholeheartedly agree with Benda and co-workers that "we should abandon, as much as possible, all generalizing categories and proceed to an investigation of these specific conditions with which we are dealing. Only in this way can each condition be under-

†Presented at the 102nd Annual Meeting of the Maine Medical Association at Rockland, Maine.

*Superintendent, Pownal State School, Pownal, Maine formerly Teaching and Research Fellow, Department of Psychiatry, Harvard Medical School.

*R. S. . . 1954, Ch. 146, Sec. 6 — Powers of the court in juvenile cases. "A municipal court may place children under the age of 17 years under the supervision, care and control of a probation officer or an agent of the department of health and welfare or may order the child to be placed in a suitable family home subject to the supervision of a probation officer or the department of health and welfare or may commit such child to the department of health and welfare or make such other disposition as may seem best for the interests of the child and for the protection of the community including holding such child for the grand jury or commitment of such child to the Pownal State School upon certification of 2 physicians who are graduates of some legally organized medical college and have practiced 3 years in this state, that such child is mentally defective and that his or her mental age is not greater than $\frac{3}{4}$ of subject's life age nor under 3 years, or to the state school for boys or state school for girls; but no boy shall be committed to the state school for boys who is under the age of 9 years. . . ."

stood and treated according to its specific need". In applying this technique we may hope to gain some valuable information.

While it is the purpose of this paper to discuss the subject of defective delinquency in general, I will first limit our investigation to delinquency in the mentally retarded child on the basis of 140 case histories. The case material comprises 140 patients who have been committed under the juvenile delinquent act since 1941, 35 girls and 105 boys. Among the patients there are 13 children whose chronological age on admission would exclude them for all practical purposes from this study since they were under 9 years of age. Two of these, however, are of considerable interest because of their subsequent delinquent history and shall be included when we discuss etiological factors. The other 11 have had an uneventful institutional history as far as demonstration of delinquency is concerned. It would seem that their commitment by Municipal Court might have been a matter of expediency because of the long waiting list of applicants for commitment by Probate Court procedure. This would also apply to another 10 cases where the impairment of mental functions was so pronounced that the clinical picture demonstrated many symptoms resembling those found in deteriorated psychotic patients. Another three patients were either of normal or dull normal intelligence and were discharged shortly after arrival at this Institution.

This leaves 116 patients or 82% of the cases where commitment under the juvenile delinquent law can be considered proper.

At this point it will be interesting to note that out of 140 cases, 73 patients were apparently committed without even a psychometric evaluation.

In practically no case did we receive or secure a complete or even an adequate social history prior to or upon commitment. More sufficient information became available only recently and in a limited number of cases.*

I do not think that the charges upon which a patient is arraigned in Municipal Court is always indicative of delinquent pattern. For example, if a mentally retarded boy of 10 years of age with an I.Q. rating of approximately 48 is charged with "theft of a bicycle" after he drove off with a neighborhood boy's bicycle, this does not necessarily indicate the boy's awareness of theft and intention to steal. Or a severely retarded girl with destructive tendencies did not necessarily knowingly, intentionally or even consciously cause property damage when she broke a window with her fist. Lack of ade-

quate information in relation to patients' behavior patterns, the actual circumstances, and the level of intellectual function at the time of the alleged offense prohibits any detailed and conclusive discussion of the charge. I, therefore, simply list the charges as printed in our records and according to their frequency, and leave it to the reader to draw conclusions:

Assault, Felonious assault, Theft of currency, Larceny, Wanton and lascivious behavior, Theft, Property damage, Arson, Common runaway, Breaking, entering and larceny, Theft of a bicycle, False fire alarm, Indecent exposure, Exposure of naked body, Taking an automobile without the owner's consent, Breaking and entering with the intent to steal, Lewd and lascivious behavior, Injured a gravestone, Threw stones at a filling station, Fornication, Cruelly beat a lamb, Tampered with an automobile, Threw rocks being large and capable of causing injuries to persons, Threw a book at an individual said book being large and capable of causing grievous injuries, For the best interest of the child and the protection of community (patient's age 8½ years), No specific charge made in one case.

Before we proceed to attempt an analysis of social and of interpersonal factors in relation to delinquency in the retarded, we must acknowledge the part played by encephalitis, and meningitis, by epilepsy and other organic brain diseases in establishing or contributing aggressive and violent behavior. These conditions usually do not respond to psychotherapy nor do the affected patients show a lasting benefit from the shock therapies. Psychosurgery might occasionally improve the manageability of these types as does medication in some instances. The patients should be handled by psychiatrists and psychiatrically trained nurses and attendants, not by correctional officers in separate defective delinquent compounds.

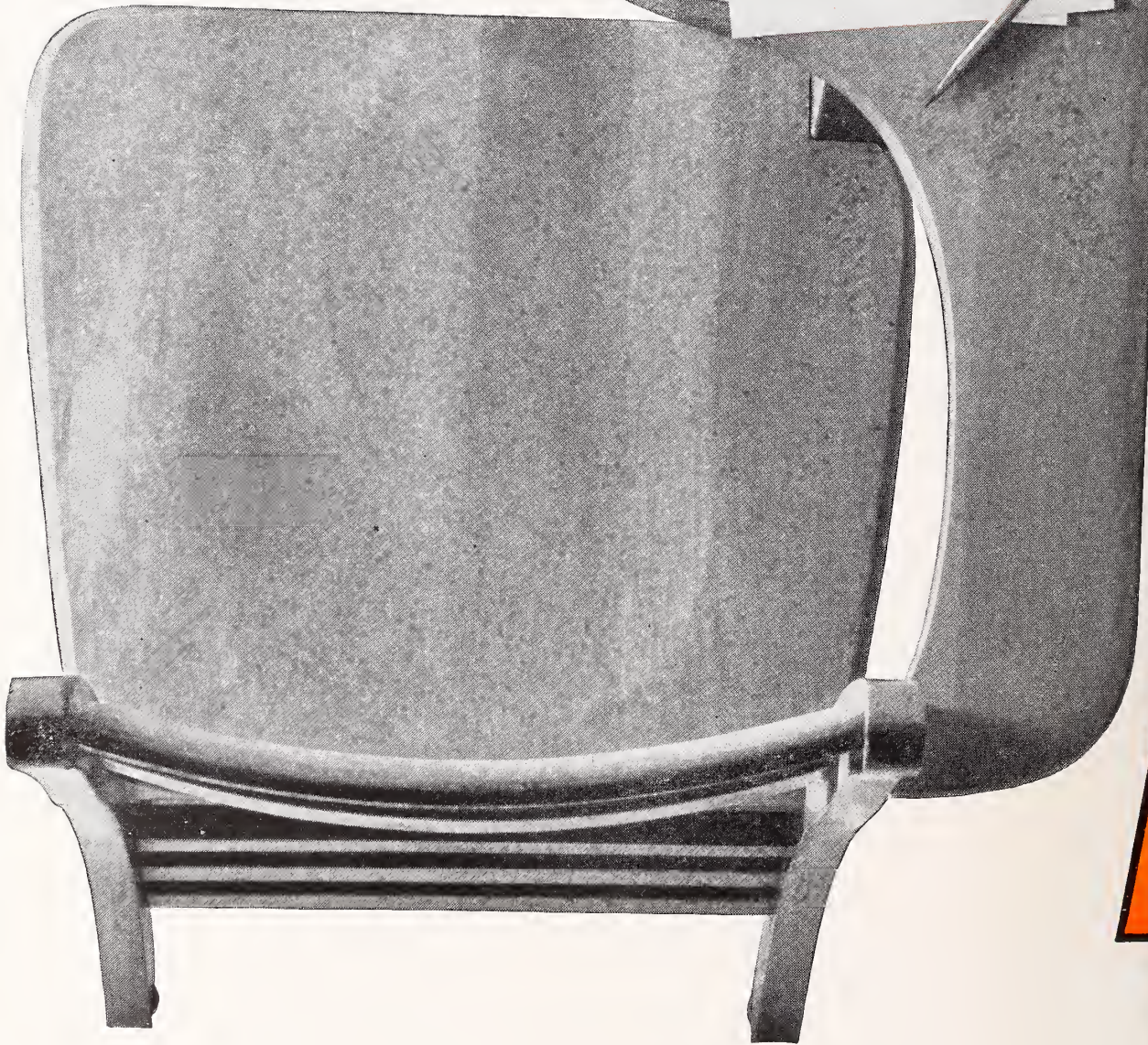
Sociological factors permit us to establish a certain uniformity in regard to 106 patients. All of these come from families where the achievements in education and economic effectiveness are poor; where the lack of responsibility and of emotional maturity is obvious.

In this group all parents are known to belong to the lowest possible income group of common laborers, etc., or are known to be supported by public funds. Ninety-six of these patients have either a mentally retarded parent or both parents are known to be of subnormal intelligence. In another 6 cases there is a history of mental illness and in 4 case records we read "no information". Eighty-one cases show positive information of a broken up home (divorce, separation, illegitimacy) and in 27 cases that at least one parent is considered an alcoholic. Twenty-five of our patients have parents with criminal records, 24 parents have been convicted more than once.

A recent attempt to evaluate our 140 patients' school records revealed that we were unable to secure informa-

*These data were collected in cooperation with Mrs. Josephine Goodwin, Psychiatric Social Worker, Pownal State School.

Quiz
for
doctors



(you probably know every answer!)

- Q. Which is today's most widely prescribed broad-spectrum antibiotic?
- A. ACHROMYCIN — it's first by many thousands of prescriptions.
- Q. What are some of the advantages of ACHROMYCIN?
- A. Wide spectrum of effectiveness.
Rapid diffusion and penetration.
Negligible side effects.
- Q. Exactly how broad is the spectrum of ACHROMYCIN?
- A. It has proved effective against a wide variety of infections, caused by Gram-positive and Gram-negative bacteria, rickettsia, and certain viruses and protozoa.
- Q. In what way are ACHROMYCIN Capsules advantageous?
- A. For rapid and complete absorption they are dry-filled, sealed capsules (a Lederle exclusive!) No oils, no paste...tamperproof.
- Q. Who makes ACHROMYCIN?
- A. It is produced — every gram — under rigid quality control in Lederle's own laboratories and is available only under the Lederle label.

ACHROMYCIN*

Hydrochloride
Tetracycline HCl Lederle



LEDERLE LABORATORIES DIVISION *AMERICAN Cyanamid company* PEARL RIVER, NEW YORK

*REG. U.S. PAT. OFF.

tion in 76 cases, 40 patients had been promoted socially into grades where they could not possibly cope with the offered curriculum, 9 were never promoted and left school after one year or less. Thirty never attended school and one was classified as "unteachable because of deafness" (I.Q. rating approximately 75) and less than 1%, namely one patient, had attended special class.

Twenty-two patients had been sentenced once or repeatedly to a correctional institution for juvenile delinquents prior to their commitment to Pownal State School because their mental retardation had not been discovered or appreciated.

These statistics, however, reveal only part of the background since our information is still insufficient and incomplete. Even more impressive is the presentation of some case histories where we did succeed in securing a fair amount of information.

CASE HISTORIES

Case No. 1. This 13 year old boy was committed to this Institution in 1944 on a charge of property damage and assault. Patient was born at full term, acquired first teeth at 7 months, had whooping cough, measles at 6 months. He also had chicken pox and mumps. He began school at age 7, attended the Maine School for the Deaf from September 1936 until 1944. While there he was considered unable to make satisfactory progress as he was troublesome and irritable with the other children. It is said that he attacked other children and required close supervision. It is suggested that he was promoted on a social basis and was finally employed in the laundry of the School for the Deaf because there was not enough help. However, at the end of the school year in 1944 while on vacation, he was charged as above-stated and committed to Pownal State School. We know very little about father and mother except that they were divorced a year prior to patient's commitment to Pownal State School.

His subsequent institutional history indicated that the professional staff felt that his retardation was due to a lack of hearing and also because of resulting speech difficulties. It was felt that the boy has considerable undeveloped resources and could progress further if not in grade work, at least in vocational work. Evidently he had not had much opportunity for vocational guidance and training. Subsequently this boy regressed in his ability to write because of lack of individual attention and he was in the manual training shop where he became an expert in chair caning. More recently he has been learning to sew brooms and he has displayed an active interest in ball playing and pitching horseshoes.

Case No. 2. This 16½ year old boy was committed to Pownal State School on a charge of sexual assault on a minor male. This person was a third child in order of birth, started to walk at 18 months, and was reportedly normal in all other matters. He attended school at age 6 and was attending the 8th grade when sent to

Pownal State School. He was first committed to the State School for Boys in 1952 and was released on parole in 1953. He was picked up by police on complaint that he had taken indecent liberties with a 4 year old boy. It was later learned from his mother that he had tried to perform sexual acts with a younger brother.

Father is said to be a member of a family of 9 children. He cannot read or write but can sign his name. He is the proprietor of a beer parlor and also has done some work on construction companies before he opened his shop. In the past he has been known to indulge heavily in alcoholic beverages. In 1938 he was divorced from patient's mother.

Mother — Little is known about her early developments. She walked and talked at the usual age and she is said to have been always the frail woman of the family. She has been subject to asthmatic attacks since about age 14 at the time when menses were established. She had good marks in school and at one time was taking a correspondence course to finish High School. She is said to have always hated alcohol, but she did take alcohol for her asthmatic attacks, chiefly brandy, "prescribed by her doctor". In 1950 she took various kinds of medications and brandy and one night attempted to kill patient by hitting him over the head with a hammer, soaking the bed linen in oil and setting it afire. Our patient, however, escaped. Mother was subsequently committed to a State hospital for observation.

Patient did not stay at this Institution for more than 3 weeks because a psychometric evaluation indicated borderline to normal intelligence. He was discharged into the custody of the State School for delinquent boys.

Case No. 3. This 12 year old girl was committed to an institution in 1949 on a charge of larceny. Patient was a fourth child in order of birth. She is said to have walked and talked at age 4. For a period of years she had been boarded in various foster homes by her father and was known to have had sexual relations with both men and boys prior to commitment. She was expelled from school because of truancy and as a behavior problem (I.Q. rating approximately 46), after she had been promoted to the third grade. A few months prior to commitment her father was arrested on a charge of incestuous relations with patient.

Mother deserted father and children several years before. No other information given.

Father is said to be a machinist by trade. Reportedly he had abused patient sexually, practicing intercourse, fellatio, and sodomy with her. At one time he worked in a beer parlor and was under the influence of liquor most of the time.

Subsequent institutional history shows that the patient became increasingly disturbed, developed delusions of persecution, visual and auditory hallucinations, and she was finally transferred as psychotic to a State Hospital at age 17.

Case No. 4. This 16 year old boy was committed in 1947 on a charge of larceny. He was the fifth child in order of birth. No information in reference to childhood diseases, early development. Patient entered school at age 6, was promoted socially and attained grade 7 where he was able to do 3rd grade work. At age 12 he was committed to a State School for juvenile delinquents on charge of breaking and entering in the daytime and larceny of money. While there he was reported to be "lazy, sly, and noisy" and to "require a great deal of supervision to get him to work at all". After parole into the custody of his mother, a known prostitute, he was again sentenced to a State School for juvenile delinquents, for truancy. He allegedly involved in setting several fires. At the correctional institution, it was felt that because of his size and low mentality he should not continue school and instead go to work. However, soon after his return to the community, he was again apprehended and charged with larceny. This time he was committed to Pownal State School. Wechsler-Bellevue test at that time revealed a full scale I.Q. rating of 88 while a previous Stanford-Binet test indicated an I.Q. rating of 61.

Father was born in eastern Europe and has had no education in this country. He married patient's mother probably at the insistence of her parents. He is a laborer and has never adequately supported his wife. In 1935 he secured a divorce and in 1947 he was again living with her. He is considered the father of 3 out of 7 siblings.

Mother was born in eastern Europe and came to this country at age 5. She became sexually promiscuous at an early age and it is suggested that she is mentally limited. After the divorce from patient's father, she kept house for another man who is considered the father of the other 4 children although they have different family names. It is suggested that mother was running a house of ill repute.

One of patient's brothers is known to us as an inmate of correctional institutions from 1948 to 1953 when he left the State.

The subsequent institutional record lists this boy as being lazy, shiftless, destructive, disturbing, and sexually aggressive. He disturbed both academic and manual training class activities.

SUMMARY

In summary, I should like to state that the vast majority of my juvenile defective delinquents come from families where mental retardation is inherent, where shiftlessness, economic inefficiency, emotional instability, and transgression of our social laws are remarkably prevalent. I would like to repeat that the majority of these patients did not, as was to be expected, adjust well to class discipline and curriculum of our public schools, that those patients with previous commitments to institutions for juvenile delinquents did not gain sufficiently by the correctional experience to become integrated in community life. May I add that the patients

whose alleged delinquency was merely an incidental misdemeanor generally had an uneventful institutional record. Those who had demonstrated serious and consistent behavior problems prior to commitment continued to display signs of emotional disturbance and a good number of them deteriorated into either psychotic states or committed more serious offenses.

Turning next to the group of patients who were either committed through or transferred from reformatories or prison to the Institution for the mentally retarded since 1922, it is remarkable to note that of the total number of 90 patients, 71 (79%) are women.

Since we know that the incidence of mental retardation among the sexes does not differ appreciably from the general distribution of sex, one will have to look for an explanation of this phenomenon.

It seems obvious that most mentally retarded men were paroled and discharged from the correctional institutions while a comparatively high number of women continued under custodial (or protective) environment. Many of these women had been charged with "disorderly conduct", "immorality", "fornication", "adultery".

The available histories in regard to these patients are rather inadequate as a result of lack of trained personnel at the time. However, we were able to establish some facts:

Twenty-four of these women had 39 illegitimate children while 9 were married and had 22 children. Of these 9 women, 4 had both legitimate as well as illegitimate children. Thirteen women are known to have had at least once, syphilis or gonorrhea.

It is likely that there was a considerable reluctance on the side of the officials to let these women return to society at the end of their sentences, which might explain, at least to some extent, the preponderance of female patients among the adult delinquent group.

Unanswered remains the question of how many mentally retarded persons have gone through reformatories, State prison, county jails, particularly in former years without being detected as retarded. Neither do we know how many of these committed more than one offense. There is little doubt, however, that the majority of the delinquent mentally retarded persons in the State of Maine have not been detected as such.

How surprising a study of these cases could be, and at the same time most valuable for planning a more adequate social response, can be demonstrated by the case of J. X.

Case No. 5. This 16 year old boy was committed sometime in 1945 on charges of felonious assault on his father who might be his stepfather since there is a question as to paternity.

Early medical history uneventful.

Mother of questionable conduct, described to be mentally retarded, left her family when patient was of pre-school age after she had rejected and mistreated her children for a number of years. Father also con-

sidered mentally retarded, seaman by trade, now deceased.

Outside the above mentioned facts, we knew little about the family. A recent and incomplete investigation revealed, however, that we know 2 grandparents, several aunts, uncles, and first cousins have been convicted or sentenced to State institutions. Two uncles and 4 cousins have been sentenced to from 24 to 48 years in Maine State Prison for the following charges:

Manslaughter	Robbery
Breaking, entering and larceny	Larceny
Indecent liberties	

Another 8 cousins and 2 aunts and one sister have spent an undetermined number of years at the State School for Girls; 3 cousins and 2 uncles have been committed for an undetermined period of time to the State School for Boys, one aunt to the Bangor State Hospital, one cousin to Reformatory for Men, and one sister and 2 aunts to the Reformatory for Women.

We know therefore, that our patient was raised in an atmosphere of maternal rejection, neglect and possible abuse, of paternal ignorance and questionable paternity. To this we can add a remarkable family record of criminality.

Beyond any doubts this family has cost the taxpayers of the State thousands and thousands of dollars.

With this background it might not be too surprising to read patient's institutional record:

A psychometric test administered at the time of admission to Pownal State School indicated he had a mental age of 7 years, I.Q. 47. At Pownal he was assigned to manual training classes, but he was uncooperative, refusing to carry out instructions. Commencing January 18, 1946 he accomplished his first escape and this continued throughout his stay at Pownal. In 1947 he broke and entered a camp with another patient stealing clothing, rifle shells, flashlight, etc. He shot the rifle over the head of a game warden and then aimed it at him but was finally subdued. In accomplishing his several escapes he did considerable damage to institutional property, to his own clothing, took a switch apart making a short circuit in the line. In November, 1949 escape resulted in his apprehension in New York City at which time he was taken to the Bellevue Hospital and eventually returned to Pownal. From time to time sharpened knives, files, etc. were located on his person or otherwise secreted. He became more and more uncooperative and belligerent; on 3 occasions he had what was described as "epileptiform seizures". In February, 1953 he with 3 other patients escaped, set fire to the dairy barn at the Institution. They were apprehended and placed in Cumberland County Jail to await a Grand Jury Hearing on May 12, 1953 at which time they were sentenced to the Reformatory.

At the Reformatory it was reported his health was good with the exception of what appeared to be attacks of epilepsy for which he was at times hospitalized.

He was tried in the 1st grade work but could not absorb the data and was excused from attending. After serving his minimum sentence to that Institution his case was taken up by the Parole Board and it was decided he should be taken to the Probate Court for recommitment to Pownal State School. He was so committed and directly re-admitted to Pownal April 28, 1954. Three weeks after coming with us he had a recurrence of epileptic seizures for which medication was administered. He gradually acquired a persecution complex, threatened to kill attendants with a knife, developed delusions that medication given him made him crazy (and it would be said then he was "crazy"), threatened suicide and was obsessed about never being able to be released from Pownal State School. Two of his fellow escapees had been paroled from the Reformatory probably because of a higher mental age. Sometime last year patient developed symptoms resembling a prison-psychosis and he was transferred to a State Hospital.

The findings reported so far are not necessarily new or revealing to the student of defective delinquency. Our experience is shared by many other institutions, nationwide. It is with the interpretation of the findings that I wish to take issue with other authors. My conclusions consequently will differ somewhat from those of my colleagues and, I hope, may open a new discussion of defective delinquency.

It is common practice in modern child psychiatry to offer children of so-called normal intelligence with personality disorders the accepted forms of therapy from analysis to group psychotherapy, playtherapy, etc. and to include case work with the mother whenever possible. Extensive reports on the etiology of behavior problems and personality disorders in childhood are available as are publications with encouraging reports regarding the results of such treatment.

Delinquency is merely the legal term for behavior disorders indicating that the child or adolescent has come into conflict with the law or was involved in a misdemeanor. Defective delinquency then would mean behavior disorders in persons with impaired intellectual potential or impaired function who have come into conflict with the law and they should be treated accordingly.

The case of the 12 year old girl with a mental age of approximately 5 years, deserted by her mother, expelled from school because of failure to grasp a curriculum not designed to meet her needs, and sexually abused by a number of men and boys, forced to incestuous relations with her own father demonstrates not only parental failure but also irresponsibility on the side of other people with whom she has come into contact including a public school system which so far has failed to understand the limitations and potentials of mentally retarded children and to develop them by establishing special classes designed to meet their specific needs.

We see physically more or less adequate persons with a mental age of 6 to 12 years getting married and raising children for whom they cannot possibly assume the responsibility. Raised in an atmosphere of sexual promiscuity, emotional starvation and immaturity, rejected by the community by being denied an education at their level, they have not even a fair chance to develop into adjusted personalities. Finally they are brought into court where society disposes of them by commitment to an institution for the mentally retarded. If these institutions would have the benefit of well trained psychiatric teams to deal adequately with the problem, the solution would be a blessing for the patient. However, society has still to demonstrate a willingness to provide adequate laws for the protection of these children at the community level; adequate schooling facilities, adequate treatment centers and skillful, psychiatrically trained personnel. Until such provisions are made the delinquents continue without treatment and display their destructive and assaultive behavior at the institution, disturbing the emotional equilibrium of the patients and of the unprepared personnel, disrupting classroom activities and causing physical damage to persons, buildings, and equipment.

It is then that the harassed administrator demands a transfer of these patients to another institution, preferably to a maximum security compound where the patient is likely to become an inmate for lifetime, the sad product of public ignorance. After society refused to provide the means for rehabilitation, treatment, and training, the public now has to pay for lifetime confinement.

The assumption that "the defective delinquent's prognosis with regard to cure of his behavior difficulty is uniformly poor" and that "at present, commitment for life to a custodial institution especially equipped to treat this type of child offers the only solution" as recommended by Lurie, Levy, and Rosenthal*, and many others, presupposes an experience which we do not have, namely the response of the so-called defective delinquent to the accepted forms of treatment, to an adequate curriculum, to a consistent and friendly society,

to an atmosphere of security and provision in childhood. Such recommendations furthermore contain no constructive suggestions for a preventive program of mental hygiene in regard to the mentally retarded starting at the roots of the evil, namely the family, the community and the public school system.

The need for a change in our concept and our approach as well as the provisions in reference to the mentally retarded and mentally ill child is acute, and requires the sincere cooperation and attention of legislators, administrators, psychiatrists, psychologists, social workers, educators, lawyers and the general practitioners.*

CONCLUSION

Attention is called to the vagueness of the term delinquency, and defective delinquency in particular.

Two hundred and thirty institutionalized cases of juvenile and adult defective delinquents are discussed with emphasis on social factors.

Outstanding is the group of familial retardation where further studies are indicated to arrive at a preventive program.

Establishment of special classes for mentally retarded children in public school systems and drastic improvement of psychiatric services at the community as well as at the institutional level are advocated.

Close cooperation with our municipal courts and with the general practitioner is highly desirable.

REFERENCES

- Lurie, A. L., Levy, S., and Rosenthal, F. M., *Am. J. Orthopsych.* 14:95-103, 1944.
- Milner, K. O., *J. Ment. Sc.* 95:842-859, 1949.
- Benda, C. E., Farrell, M. J., and Chipman, C. E., *Am. J. Psych.* 107:721-729, 1951.
- Westwall, A. E., *Am. J. Ment. Def.* 56:283-289, 1951.
- Farrell, M. J., and Ogonick, J., *Am. J. Ment. Def.* 59:439-444, 1955.

**Am. J. Orthopsychiatry* 14:93-103, 1944.

*Since the completion of this paper the State Legislature of Maine has enacted a law which makes provisions for the establishment of special classes in local school systems and has made provisions for a greatly improved institutional program.

The Journal of the Maine Medical Association

DANIEL F. HANLEY, M.D., Brunswick, Editor

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ACROSS THE DESK

THE WEEK IN WASHINGTON

The State Department, we have learned, is drawing up a new proposal for submission to Congress next year for a hospital and medical care plan for U. S. employees and their dependents overseas . . . Incidentally, the department is in urgent need of a physician, who is willing to do a lot of world traveling, to help supervise medical care at embassies and other overseas points . . . Air Force physicians, dentists and veterinarians now are being addressed verbally as “doctor”, its official policy. In written correspondence they still will be referred to by military rank.

39 STATES READY FOR ‘WAIVER OF PREMIUM’ PROGRAM

A total of 39 states, plus the District of Columbia, Hawaii, and Puerto Rico, have entered into agreements with the U. S. Department of Health, Education, and Welfare to carry out the “disability freeze” program of the social security act. Under this plan, enacted last year, the pension a disabled worker would receive at age 65 is “frozen” or not reduced because of the years he is unemployed. Most states have selected their vocational rehabilitation agencies to operate this program. State officials are in immediate charge of administering the program, but subject to federal review and investigation.

The same machinery being used for administering medical examinations under the new “disability freeze” law will be used to handle the compulsory disability insurance program if that plan is enacted next year. Under the proposed legislation the disabled worker would get his pension at age 50, rather than waiting until age 65. Federal disability insurance is opposed by the AMA because (a) machinery at the federal level to supervise the certification of disability would project the government into the medical practice picture, (b) cash disability benefits would be a threat to the rehabilitation program, and (c) physicians would be under pressure from patients to make certifications of disability.

MAINE M.D. ON NATIONAL SCENE

The fourth annual A.M.A. Public Relations Institute, held in Chicago’s Drake Hotel recently, drew an attendance of more than 300, and the program was the most successful ever held. John R. Lincoln, M.D. of our Public Relations Committee, was one of the “More than 70 M.D.’s” who attended.

Members of our State Committees are planning to attend the Legislative and Medico Legal Testimony Conferences in New York City on October 29 and 30, and The Rural Health Regional Conference in Boston on October 12, 1955.

Continued on page 298

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INTERIM SESSION OF THE A.M.A.

Preparation for the Interim Session of the A.M.A. to be held this Fall in Boston are nearing the "Fever Point". Put a red line on your calendar around November 29 through December 2, 1955.

UNITED STATES BECOMES 'MEDICAL MAGNET'

Chicago — The United States has become a "medical magnet" for physicians in Europe, Asia, Africa, and Latin America.

More than 5,000 foreign physicians came to this country during the year 1954-55 for study, according to a survey by the Institute of International Education and the American Medical Association.

They came from 83 different countries for internship and residency training at hospitals in 42 states, the District of Columbia, Hawaii, Puerto Rico and the Canal Zone.

IS IT DEDUCTIBLE?

Revenue Bureau summarizes Medical expenses under tax law. Deductible and non-deductible medical expenses for income tax purposes have been summarized by the Bureau of Internal Revenue in a series of rulings that combine new interpretations with a clarification of old rulings. Some examples: *Travel expenses* to and from a location where daily visits to a medical clinic are required are deductible but (since 1954) cost of food and lodging are not, except as part of a hospital bill. *On education and training*, special instruction in speech and lip reading for a deaf child are deductible expenses, but not a course of ordinary instruction. Psychiatric care and therapy at specially equipped treatment schools for alleviating mental illness are deductible items, but where cost of instruction at a psychiatric school doesn't represent medical care, it is not deductible. *On health and accident indemnity insurance*, if a policy covers both injury indemnity and medical expense reimbursement, premium cost for latter is deductible but not for former. *On other points*, ordinary exercise rubdown, air conditioner, oxygen equipment, iron lung, special bed board, all are deductible items when prescribed by a physician for an illness, but not food for ulcer patient, maternity clothing, diaper service, wigs or toothpaste.

ASSISTANCE GRANTS OFFERED FOR NEW MEDICAL PRACTICES

A helping hand to physicians in need of financial assistance to establish medical practice units is being offered by the Sears-Roebuck Foundation in cooperation with the American Medical Association. Since young physicians often lack capital and business "know-how," this plan is intended to fill the gap with long-term, low-cost assistance. Unsecured 10-year loans of up to \$25,000 will be offered to physicians seeking to establish practices but unable to get full local financing. One loan in each of five regions in the country will be given in 1955 under an original \$125,000 Foundation grant.

Applications should be sent to the office of the region in which the proposed medical practice is to be established. They should be addressed to the Director, Sears-Roebuck Board, at 4640 Roosevelt Blvd., Philadelphia 32.

A new, attractive loose-leaf guide edited by the American Medical Association and published by the Sears, Roebuck Foundation of Chicago, covers all phases of the problem of starting a practice in a new community. Discussion ranges from office location in terms of patient population, parking and hospitals, to details of fixtures, plumbing, office layout, equipment and finance. Floor plans for both new and remodeled buildings are included along with check lists of basic diagnostic and laboratory equipment and supplies.

In 86 pages, 11 x 14 inches in size and profusely illustrated, every possible facet of the founding of a medical practice is considered — a particular advantage to the physician planning to set up practice in a small town or rural area.

This guide is available on loan from the Secretary of each county medical society. The copy from the office of the State society is already out for the second time.

This is truly a wonderful program — our hats are off to the Sears Roebuck Foundation, for a Grant-Step in the right direction.

Continued on page 302

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Pro-Banthine consistently controls gastrointestinal hypermotility and spasm and the attendant symptoms.

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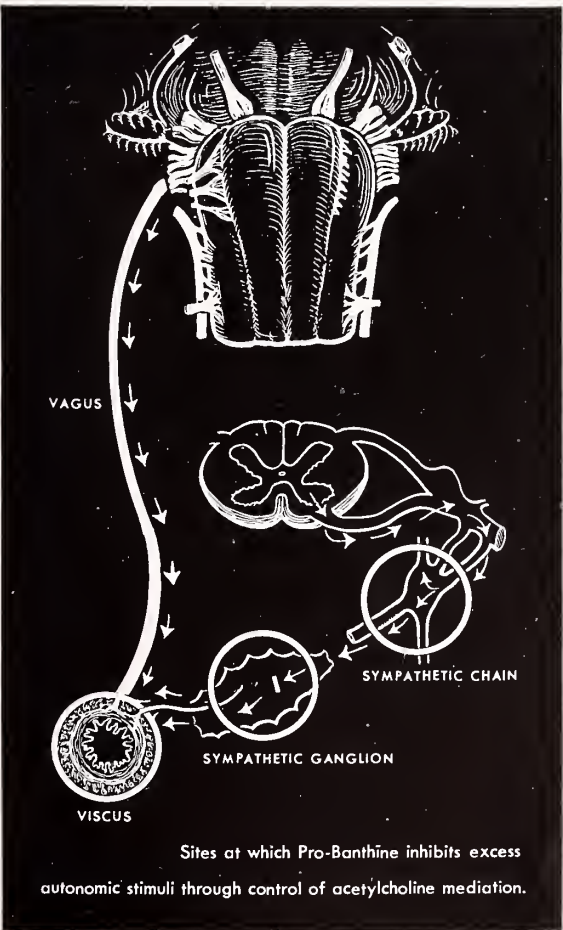
Roback and Beal² found that Pro-Banthine orally was an "inhibitor of spontaneous and histamine-stimulated gastric secretion" which "resulted in marked and prolonged inhibition of the motility of the stomach, jejunum, and colon. . . ."

Therapy with Pro-Banthine is remarkably free from reactions associated with parasympathetic inhibition. Dryness of the mouth and blurred vision are much less common with Pro-Banthine than with other potent anticholinergic agents.

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Pro-Banthine (β -diisopropylaminoethyl xanthene-9-carboxylate methobromide, brand of propantheline bromide) is available in three dosage forms: sugar-coated tablets of 15 mg.; sugar-coated tablets of 15 mg. of Pro-Banthine with 15 mg. of phenobarbital, for use when anxiety and tension are complicating factors; ampuls of 30 mg., for more rapid effects and in instances when oral medication is impractical or impossible.

For the average patient one tablet of Pro-Banthine (15 mg.) with each meal and two tablets (30 mg.) at bedtime will be adequate. G. D. Searle & Co., Research in the Service of Medicine.



1. Schwartz I. R.; Lehman, E.; Ostrove, R., and Seibel, J. M.: *Gastroenterology* 25:416 (Nov.) 1953.

2. Roback, R. A., and Beal, J. M.: *Gastroenterology* 25:24 (Sept.) 1953.

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County Society Notes

HANCOCK

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, Maine on September 14, 1955. There were 12 members and one guest present.

The meeting was opened by the President, Dwight Cameron, M.D., of Northeast Harbor.

Lawrence Cutler, M.D., of Bangor, speaker of the evening, gave a very interesting talk entitled *The New Look In Medicine*. He discussed the uses of radioactive substances in medicine and described the work now being done in Bangor.

ARTHUR M. JOOST, JR., M.D.
Secretary

PISCATAQUIS

The annual meeting of the Piscataquis County Medical Society was held after a delicious steak dinner at Squaw Mountain Inn, Moosehead Lake, Maine on Thursday, September 8, 1955.

Officers were elected as follows:

President, Norman H. Nickerson, M.D., Greenville
Vice President, Ralph C. Stuart, M.D., Guilford
Secretary-Treasurer, Robert C. MacDuffee, M.D., Monson
Censor (3 years), C. Harry Lightbody, M.D., Guilford
Delegate to the Maine Medical Association, Ralph C. Stuart, M.D. *Alternate*, Linus J. Stitham, M.D., Dover-Foxcroft.

Daniel F. Hanley, M.D., Executive Director of the Maine Medical Association, spoke briefly relative to his recent trip to Washington to oppose the recognition of osteopaths in the Armed Forces.

Allan Stinchfield, M.D., of Augusta presented a stimulating lecture with X-rays on the diagnosis and treatment of diseases and injuries of the femur. A lively discussion followed.

The next meeting will be held in Dover-Foxcroft on Thursday, November 17.

ROBERT C. MACDUFFEE, M.D.
Secretary

SOMERSET

The annual meeting of the Somerset County Medical Society was held at the Colony House, Lakewood, Maine, August 16, 1955. The meeting was called to order by the President, William B. Grow, M.D., of Fairfield.

Daniel F. Hanley, M.D., of Brunswick, Executive Director of the Maine Medical Association, discussed medical problems of interest to the members.

The following officers were elected for the coming year:

President, William B. Grow, M.D., Fairfield
Vice President, Richard P. Laney, M.D., Skowhegan
Secretary-Treasurer, Harland G. Turner, M.D., Norridgewock
Delegate to the Maine Medical Association, George E. Sullivan, M.D., Fairfield. *Alternate*, Howard L. Reed, M.D., Skowhegan.
Board of Censors: Harland G. Turner, M.D., H. Carl Amrein, M.D., and Maurice E. Lord, M.D.
Program Committee: Harland G. Turner, M.D., George E. Young, M.D., and Richard P. Laney, M.D.

The business meeting was followed by dinner with the doctors' wives and guests at the Lakewood Inn.

There were nine members present: H. Carl Amrein, M.D., Franklin P. Ball, M.D., Robert H. Bearor, M.D., Albert J. Bernard, M.D., William B. Grow, M.D., Richard P. Laney, M.D., Edwin M. Lord, M.D., George E. Sullivan, M.D., and Harland G. Turner, M.D.

HARLAND G. TURNER, M.D.
Secretary

News and Notes

Refresher Course In Infections and Infectious Diseases

CENTRAL MAINE GENERAL HOSPITAL

BY LOUIS WEINSTEIN, M.D.

Chief, Haynes Department of Infectious Diseases, Massachusetts Memorial Hospitals; Associate Professor of Medicine, Boston University School of Medicine.

October 6, 1955

- I. Infectious diseases. Introductory consideration of general physiological reactions of tissues to invading organisms and their products of growth. Spectrum of activity of antibiotics, sulfonamides. Essential laboratory aids in general practice.

October 13, 1955

- II. Infections of the skin, bones and joints, including consideration of the venereal diseases and of deep tissue infections.

October 20, 1955

- III. Infections of the upper respiratory tract, including those of eyes, ears, nose, throat and sinuses.

October 27, 1955

- IV. Infections of the lower respiratory tract, lungs and pleura.

November 10, 1955

- V. Infections of the gastro-intestinal tract and peritoneum, including discussion of pre- and post-operative use of antibacterial agents.

November 17, 1955

- VI. Infections of the genito-urinary tract, including postpartum infections.

November 23, 1955 (Wednesday)

- VII. Infections of the cardio-vascular system, including bacteremia, septicemia, endocarditis, thrombophlebitis and recent concepts in the treatment of rheumatic fever.

December 1, 1955

- VIII. Infections of the nervous system.

The problem of infections in general will be considered in this course of eight separate lectures in a method quite different from the usual text book approach. Since the physician in practice sees a patient with infection of a part organ or system, this series will be presented from this point of view. All infections will be considered generally as well as regionally, with appraisal of clinical symptomatology, diagnosis, differential diagnosis and use of available laboratory aids. Emphasis will be placed upon proper types of treatment. The selection of medicinal agents to be used, the use and abuse of antibiotics and sulfonamides,

Continued on page 303

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ACCIDENTAL POISONING

Writing in the *Journal of the AMA* for August 13, 1955, Irvin Kerlan, M.D., reports:

"In 1951 accidental poisoning by solid and liquid substances caused 1,497 deaths, of which 411 were in children under 5 years of age. These statistics do not reveal the full picture. They do not point out the staggering number of nonfatal poisonings, which is estimated to be 100 to 150 times the number of fatalities. The public must be awakened to the hazards of misuse of drugs and other household chemicals in a continuing effort to prevent accidents in the home. Poisonings by common household items such as bleaches; cleaning fluids; furniture polish; lye; kerosene; rat and insect poisons; weed killers; medicines including aspirin, methyl salicylate, and boric acid; and cosmetics and toilet goods are particularly tragic since they are preventable. Too often parents have permitted accidental poisoning of their children through carelessness or lack of information. With thought, instruction, and effort they can reduce poisoning risks."

IS IT CANDY OR IS IT MEDICINE?

The New York State *Journal of Medicine* recently published an interesting editorial, from which we quote:

"The Committee on Toxicology of the A.M.A. Council on Pharmacy and Chemistry has been formed recently to study the health problem of household chemical products. At a general conference on this problem held by the committee in September, 1954, various representatives of government, industry, and medicine 'repeatedly drew attention to the incidence of poisoning from drugs, especially those compounded in flavored form for children and familiarly known as "candy medication."'

"The entire report is intended as an evaluation of available information on the nature of candy medication and its influence on the incidence of poisoning in children. We reproduce here the conclusions of the study:

The predisposing factors underlying most cases of accidental poisoning are ignorance, carelessness, and ready access to a harmful drug. To reduce or eliminate these influences, various measures, such as precautionary labeling, safety containers, and even restrictive legislation, have been proposed. Each of these has merits, as demonstrated by experience in other fields. As a group, however, they are supportive rather than basic remedies; for example, general admonitions to 'keep out of the reach of children' are needed on containers of drugs that are frequently misused, such as aspirin. For such admonitions to be fully effective, however, consumer apathy to all label instructions must be combatted. Safety devices such as packaging individual tablets in tough plastic film, strong spring caps for tablet containers, and other types of protective closures may be deterrents to inquisitive children, but they must be sufficiently inexpensive to invite public acceptance of products so packaged. Although restrictive legislation is of value in establishing a minimum standard of conformance for products, it usually has little direct influence on consumer practices.

A basic cause of carelessness and negligence among users of drug products is the advertisement that states or implies a degree of safety not associated with the drug. Such advertising encourages an easy familiarity that too often engenders carelessness. More often than not this carelessness is the result of a cultivated ignorance of the dangerous capacities of a drug rather than an inherent negligence on the part of the user. Recognition of this fact will be a major step toward improving the safe use of common household medications.

"Commenting editorially on the report, the *Journal of the American Medical Association* said, in part: 'The need for special children's medicaments that have taste and eye appeal is recognized; however, the use of packages, labeling, and dosage forms that are commonly associated with candy and that inconspicuously identify the product as a drug invite carelessness in storage and use. The public should be informed and constantly reminded that many of these products that are packaged and flavored to look like candy are in reality potent drugs, some of which can be dangerous with overdoses.'

"We urge our readers to take note of the need to inform the public of the possible dangers of this form of medication. Among preschool children, the age group in which accidental poisoning is most frequent, drugs are reportedly responsible for 33 per cent of the fatal poisonings. Here is certainly need for a campaign of education in which the family physician as well as the medical societies and all agencies concerned can cooperate in the public interest."

with consideration of their effectiveness and complications, will be individually considered. Each lecture will be followed by a general discussion and consideration of questions and problems.

This course will total 25 hours and will be applicable to all medical and surgical specialties as well as physicians in the general practice of medicine. Certification of 25 hours postgraduate medical education will be available upon request following completion of the course. All lectures will be held at the Central Maine General Hospital from 1:00-4:00 p.m. on the dates noted above.

Fee, \$50.00. Registration form may be obtained from the Central Maine General Hospital.

CLEFT PALATE INSTITUTE

An unusual institute — the first of its kind for Maine — was held in Portland on August 30. This was a Cleft Palate Institute which was arranged by Ella Langer, M.D., Director, Division of Maternal and Child Health and Crippled Children's Services, State Department of Health and Welfare, for physicians and dentists throughout Maine.

The Institute was conducted by a team from the Cleft Palate Center and Training Program, University of Illinois, and comprised the following members: Herbert Koepf Baker, Ph.D., Director of the Center; Edward F. Lis, M.D., Professor of Pediatrics, Samuel Pruzansky, D.D.S., Director

of Research and Herbert R. Kobes, M.D., Director of Services for Crippled Children, University of Illinois, — formerly director of Maternal and Child Health and Crippled Children's Services for the Maine Department of Health and Welfare.

During the morning session, the participants presented the team approach to the problem of the cleft palate, Dr. Baker outlining this method substantially. Dr. Lis reviewed the total needs of the child with a cleft palate. Dr. Pruzansky discussed new concepts arising from recent research in the field. The role of services for crippled children in a state-wide rehabilitation program was outlined by Dr. Kobes.

One of the significant statements arising from the general discussion was that presented by Dr. Baker in response to the question: "When should surgery be performed on the child with a cleft palate?" Dr. Baker's answer: "There is no standard procedure for this. Each case must be decided on an individual basis. In some cases early closure of the palate is indicated; in others, plastic repair will have to be postponed for several years. And there are cases where an obturator will have to be applied instead of undertaking surgical procedures."

The afternoon session was devoted to a presentation of patients and demonstration of the group working as a team in establishing long term plans for these patients.

The Institute was well attended by physicians and dentists representing a wide cross-section of this State and several other New England States.

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Tuberculosis Abstracts*

Issued by the National Tuberculosis Association

Problem of the Asymptomatic Pulmonary Lesion

By R. Drew Miller, M.D., The Journal Lancet, March, 1955.

A 67-year-old clothing salesman registered at the Mayo Clinic on November 11, 1953, for evaluation of an asymptomatic X-ray shadow in the field of the upper part of the left lung. The abnormal shadow had been discovered in June, 1949, in a routine roentgenologic survey. Follow-up roentgenograms were made in the next few months. Apparently little change occurred in the roentgenologic appearance of the lesion until August, 1951. In December, 1951, the patient had a short episode of substernal pressure-type pain, which was relieved by pills and an injection. No apparent change was noted in the electrocardiogram to indicate localized myocardial injury. On January 23, 1952, he entered his local tuberculosis sanatorium and began to receive antimicrobial therapy with streptomycin and para-aminosalicylic acid. Use of the para-aminosalicylic acid (PAS) was discontinued after four months, and determination of the blood urea gave results within normal limits. The streptomycin was given for two more months. The roentgenologic appearance of the lesion showed little change during the six months of treatment, and the patient was dismissed for roentgenologic follow-up studies on an outpatient basis. The patient was not aware of any positive results of procedures for the detection of tubercle bacilli by smear, culture, or inoculation of guinea pigs with specimens of the sputum or with gastric washings. In September, 1953, he had noted slight fever and cough of a few days' duration, relieved by injections of penicillin.

In October, 1953, a follow-up roentgenogram of the thorax showed possible slight enlargement of the shadow under observation. Further investigation was recommended. There were no unusual symptoms at this time, however.

The patient was found to be an asthenic white man weighing 117 pounds, and 67 inches in height. The blood pressure was 140 systolic and 80 diastolic, in millimeters of mercury. The cardiac rhythm was regular and there were no significant murmurs. Other than slight diminution of breath sounds and occasional soft rales over the left posterolateral aspect of the thorax, the findings were not significant. Lymph nodes were not enlarged.

Urinalysis, determination of hemoglobin, leukocyte count, all within normal limits. The sedimentation rate was 15 mm. in one hour by the Westergren method. Result of the Kline test was negative. A tuberculin test, in which 0.0001 mg. of purified protein derivative was used, was reported as giving a negative result. A second injection of 0.005 mg. of purified protein derivative was reported to have produced a positive reaction after forty-eight hours. An electrocardiogram showed only left axis deviation. Examination of the sputum, bronchial smears, and bronchial washings for malignant cells and acid-fast bacilli gave negative results.

A roentgenogram of the thorax showed a rather extensive lesion on the left at the level of the first and second anterior interspaces. Tomograms of the area showed no definite cavitation. The serial roentgenograms of the thorax made in the patient's home town, when reviewed, showed very slight enlargement of the shadow over the two-and-one-half-year period. Bronchoscopy revealed no gross abnormalities.

Because of the indeterminate nature of the lesion after clinical

study and observation, left thoracotomy was advised. A grade three adenocarcinoma of the posterior segment of the upper lobe of the left lung was found at operation, with no involvement of the hilar nodes. Left pneumonectomy was performed. The patient made an uneventful recovery.

Follow-up reports from the patient's local physician indicated that symptoms of cerebral metastasis appeared. The patient died on June 5, 1954. A large metastatic lesion of the right cerebral hemisphere was found at necropsy.

The value of survey roentgenograms, which is widely appreciated among the laity as well as within the medical profession, is again demonstrated in this case. The case further points out the difficulty so often encountered in making a clinical diagnosis after an asymptomatic lesion is discovered. The lesion located peripherally in the field of the upper part of the left lung had characteristics of either a chronic inflammatory process or a neoplasm. Although it was possible to detect the abnormality by means of the roentgenogram, this did not provide the etiologic diagnosis. Laminated calcium, diagnostic of a granulomatous process, was not evident in any of the serial thoracic roentgenograms of this patient. Even tomograms, made just before operation, did not demonstrate calcium. Thus, a malignant neoplasm could not be ruled out from a roentgenologic standpoint. The value and limitations of roentgenologic technics in the detection of asymptomatic lesions have been reviewed by Good and associates. Serial roentgenograms showed little change in the abnormal shadow. Although failure of such a shadow to change might suggest that the lesion thus depicted is benign, this case demonstrates how a bronchogenic carcinoma, particularly an adenocarcinoma, may show little change over a period of months or even years.

The failure of previous bacteriologic studies by home physicians to demonstrate tubercle bacilli in the patient's sputum or gastric washings cast doubt upon the clinical diagnosis of pulmonary tuberculosis. Furthermore, failure of the shadow to regress during combined chemotherapy should lead to further questioning of the previous clinical diagnosis. The skin tests indicated that the patient previously had been infected with tubercle bacilli and probably also *Histoplasma capsulatum*, but additional bacteriologic studies had failed to show that the pulmonary lesion was related etiologically to the cutaneous reactions. In this case a clinical diagnosis could not be made by the usual laboratory methods, and thoracotomy became necessary. The incidence of malignant lesions among asymptomatic circumscribed pulmonary lesions had been pointed out by Harrington.

The patient's ultimate clinical course illustrates the serious complications which often follow the discovery of bronchogenic carcinoma, even though the hilar nodes were not involved. Tinney and Moersch found symptoms referable to the nervous system in 12 per cent of 448 cases of carcinoma of the lung. In 4 per cent of the entire series, the neurologic symptoms represented the presenting complaint. King and Ford, in reviewing 100 cases of metastasis to the central nervous system from carcinoma of the lung, concluded that these types of metastasis occur early and frequently. This further demonstrates the importance of early diagnosis and treatment of asymptomatic lesions of the lung.

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Are You Tax Bait

RALPH R. BENSON

Attorney at Law, Los Angeles, California

Don't *jump* when you open that letter or when *that* man in the doorway tells you the Federal Tax Return you filed this year, last year or even a couple of years ago is being carefully investigated.

You stand there — and right away you hit yourself with this question: "*Why* did this happen to me?"

You assure yourself that you are an honest taxpayer and have nothing to fear and nothing to hide. Yet, when you signed that tax return, you mailed the original with the hope you would never hear of it again and put the copy in your files in the belief it would just gather dust.

Would you like to know about the innocent, homespun, garden variety ways of attracting the attention of the tax people?

It is not just a tax return that attracts attention. It can be your method of keeping books. It may be the people around you that you know or don't know. It may not be anything of your own doing that attracts attention. Or, the government may snap at first at the simple harmless bait, and then by its procedures, snare a far greater bait and a more explosive one.

Are you interested in learning what these ways of attracting attention are and which of these ways can be avoided?

Then rate your own chances of coming down with a

good case of "T.T.'s" (tax tremens) by going through this list of "Bait";

THE BAIT

1. *Have you made any mistakes in arithmetic?*
2. *Did you claim a large or unusual deduction?*
3. *Are you claiming dependents other than your wife and children?*
4. *Is your income over \$20,000 a year?*
5. *Is your return part of a "spot" check?*
6. *Has your patient been called in to prove up medical expenses on his own return?*
7. *Has an informer told a story about you?*
8. *Has a newspaper given you publicity on your finances?*
9. *What vicious rumors are making the rounds?*
10. *Is the wife in the divorce court telling all?*
11. *Has a Federal or State Agency become aroused about you?*
12. *Will a large amount of cash in your safe deposit box create suspicion after your death?*
13. *Do you pay your bills in cash?*
14. *Are you buying property?*
15. *Will the Inventory of an Estate show up possible unpaid income taxes?*
16. *Are you a victim of the bank deposit method?*
17. *Are you a victim of the net worth theory?*

BAIT #1

Have you made any mistakes in arithmetic?

Take the case of Dr. A, a busy OB man, who had counted on a few free evenings to do his tax return. But, instead, he let it go until the deadline, the night of April 15. Apparently, delivering babies had caused him to take care of other people's new tax exemptions while he had delayed taking care of his own.

With the clock running out on the last few hours for filing, Dr. A feverishly gets hold of an adding machine and starts listing all of his operating expenses from a stack of torn slips. His office expenses total \$3,600, including \$1,200 for a cleaning woman to whom he paid \$100 per month. Interrupted. He gets a telephone call. A worried patient in false labor. Back to the grind again. Still thinking about his patient's labor pains, he enters the correct total of \$3,600 on the return but copies \$2,100 instead of the \$1,200 for the cleaning woman by simply mixing the figures 1 and 2. This simple error which slipped through his fingers will be picked up by the comptometer operator at the Federal Building, as her nimble fingers punch the busy keys. A simple error paying off in \$1,000,000 worth of grief.

This simple error which happens every day, will automatically summon the doctor into the tax office for explanation. The tax people would not know from the face of the return whether the \$2,100 or the \$3,600 was the correct figure. Sure, the doctor, after spending a day down at the tax office, after tracking down his receipts, vouchers and check stubs will eventually sweat his way out of the problem and stand pat on the original tax due with no change. But this simple error of one item caused a complete check-up of pages 1, 2, 3 and 4 and all of Schedule C attached.

The moral is: It is standard office procedure for the local tax office to check all returns for mathematical accuracy with its corps of comptometer operators.

So you had better take your time or see your accountant or tax adviser. Besides, an OB man can alleviate labor pains, his patients' and his own, by getting an extension of time for thirty days which is not too hard to get from the tax people.

BAIT #2

Did you claim a large or unusual deduction?

Dr. B, last year claimed a deduction for \$5,103.52 for entertainment expenses. He operates an industrial clinic. His practice is strictly referral. He contracts with industrial insurance companies to be referred industrially injured patients from several manufacturing plants. The Doctor makes it his business to entertain the insurance companies' key men, the executives of the factories and the Doctors at the First Aid Clinics, who regularly send the injured employees from the plant to the outside industrial doctors on the approved list. Dr. B, as well as the other industrial Doctors in the area, take these people to lunch or dinner or to

football games. He invites them to Christmas parties, gives them wedding, birthday and anniversary gifts and invites the more daring on aeroplane and hunting trips. Last year he estimated all these expenses except the Christmas party. He had kept no itemized records and had but one receipt of \$103.52 from the Christmas party and estimated the rest at around \$5,000.00. This year, on the advice of his accountant, he kept accurate records. He marked the checks when he paid for gifts, with the names of the specific industrial clients. On the lunches, dinners and ballgames where he paid cash, he reimbursed himself the next day by check. All of his aeroplane and hunting expenses at the airports and hunting lodges were by itemized charge accounts and paid monthly. Then the accountant subtracted from the dinners the cost of the Doctor's usual meals and from the aeroplane and hunting expenses he picked out 25% as the Doctor's fair estimate of his own personal expenses. The net total this year was a surprising \$9,502.00, a surprise even to the Doctor because he thought he spent the same as last year. His estimates in years before were actually too low. This year Dr. B's return is checked because of the unusually high entertainment deductions in both years.

An unusually intelligent government auditor, of which there are many in government service, reviewing tax returns at the Federal Building would be alarmed at the total business deductions, including entertainment in contrast to the doctor's reported total income. For instance, a deduction of \$9,502.00 or \$5,103.52 for entertainment against a gross of \$40,000.00 would attract attention, inspection and visitation. This year's entire itemization clears 100% because it is itemized and necessary and proper to his specialty in his profession. Last year's, except as to the Christmas party, is cut in half by the agent when the Doctor fails to produce sufficient evidence to back up his estimates and he is only allowed for last year \$2,603.52.

The moral is: Dr. B now keeps a little black book marking down:

1. Place of entertainment;
2. Kind of entertainment: tickets, food or liquor;
3. Name of entertainees;
4. Amount actually spent on them; and
5. Date.

This goes for every entertainment deduction, whether by cash, check or charge account.

BAIT #3

Are you claiming dependents other than your wife and children?

Dr. C became a tragic victim of an automobile vs. train accident which claimed the lives of his wife, his wife's father and uncle. His wife had been driving the car. She had just picked up her family at the railroad station. They had come for a short visit. Dr. C immediately became the sole support of his injured

mother-in-law who survived the wreck after sustaining a fractured femur. He also became the sole support of the injured first cousin of his wife who was 22, unmarried, a schoolteacher, who had also been in the wreck. The cousin had sustained a brain lesion and required care in a sanitarium. Although the Coroner's Inquest showed his wife was not at fault at all, the Doctor feels morally obligated to support the two survivors, the mother-in-law and this unfortunate young lady cousin, to the fullest extent.

In a strict legal sense, the mother-in-law and cousin-schoolteacher are now unrelated to the Doctor. His wife, when she was living, was the legal link between her family and the doctor. These legal distinctions, however, did not prevent the Doctor from contributing far more than one-half the total support of these two. On his tax return he claimed these two for the first time this year, entering their names in the newly added box for relatives on page 2, claiming \$1,200 for them as well as \$600 for himself and as well as another \$600 for his mother-in-law who was over 65. This tax return will be red-pencilled by the local tax office and thoroughly checked. Any dependents outside of a wife and child will now stick out like a sore thumb because of the new tax form and, besides, the Doctor was making a new tax law when he claimed a presently unallowable \$600 for his mother-in-law just because she was over 65. This over 65 extra allowance can only be claimed by a taxpayer's wife or husband and not for any other relative. Or, if the mother-in-law had her own income and filed her own return, she could have claimed the extra \$600 for herself.

As to the mother-in-law, the Doctor would be allowed the basic \$600 even though she is now unrelated. The tax people consider the relationship as still going on whether she lived with the Doctor before the accident or not. As to the school teacher in the sanitarium, the Doctor would not be allowed one cent of dependency exemption because the cousin did not reside with the Doctor before the accident. The cousin's exemption will be red-pencilled, the Doctor will be called into the tax office and told why. The tax law about dependents is that complicated and inconsistent.

The moral is: Dr. C now sees a lawyer or an accountant rather than going to the news stand for any of the popular "simplified" one-hour tax courses. A tax advisor would have filled out the form correctly and would have attached to the return for the first year a simple explanation that the proper relative was claimed and this whole problem of the red pencil and personal tax lecture would have been avoided. This personal note attached to the return by the accountant is effective and humanizes it. It saves the Government unnecessary checking and minimizes the ever-present memories of the tragedy. Besides a tax advisor would tell the Doctor he is entitled to another \$600 exemption legally allowable for his wife, although she passed away before December 31st. He

is also entitled to file a joint return and pay his taxes on a split income for that year.

BAIT #4

Is your income over \$20,000 a year?

Dr. D. earned a net income of \$27,000 this year for the first time. When he sat down to make out his tax return, he was very careful to describe his first venture this last year into the rising stock market. He had purchased shares of a supposedly high grade growth company which proved slightly undesirable since it had a tendency to shrink. This he had purchased on the tip of an obscure radio reporter on a local station. He kept this stock three months. It went down five points so he dumped it. He entered on his tax return a short-term capital loss. Sufficiently soured by this bitter experience, he even sold shares in a company he had been given by his mother years ago for a small long-term capital gain. This old stock in a small private company had not paid dividends for the past twenty years. The doctor had received \$35 in dividends on that single stock purchase he had made this year. He entered \$35 in Schedule J on his and his wife's joint return, but found it rough going trying to fill out the rest of the required dividend credit or exclusion questions. After trying for one-half hour to figure out the instructions in the tax pamphlet furnished by the Government, he decided to cross out everything about the \$35 dividends, leaving it blank, because he figured that the dividends, being so small, under \$50, would be excluded anyway from his taxable income. He was right on that, but wrong not to fill it out. His return as filed showed accurately the stock transactions and his \$27,000 net, and nothing about dividends received or dividend credits claimed. The local tax office flagged his return because his income was over \$20,000 and because it seemed suspicious to the first tax checker that the Doctor did not report any dividends when the Doctor apparently had owned and sold stocks in two companies. The tax checker at his desk at the Federal Building pulled down the latest copy of Moody's Stock Service and confirmed the low stock dividend on the listed securities purchased this year, but could find no listing on the older private company or the size of any dividends distributed to the stockholders. An ounce of suspicion thus created tipped the scales of this taxpayers in the over \$20,000 a year category for a tax checkup.

The moral is: Every return over \$20,000 net income is carefully reviewed at the tax office. The slightest suspicion of something wrong will bring the tax man to the taxpayer for a tax talk. Had Dr. D consulted a lawyer or accountant to fill out the dividends received portion, he still would have paid no tax on the \$35 and it would have given the Doctor another tax deduction for money paid to the lawyer or accountant. And probably saved himself the visit from the tax investigators.

Continued on page 338

Lighthouses In A Changing World*

O. SPURGEON ENGLISH, M.D.

Professor and Head, Department of Psychiatry
Temple University School of Medicine and Hospital
Philadelphia, Pa.

The subject which has been assigned to me could, like most subjects, be interpreted in different ways. For instance, a lighthouse might be said to be a device for keeping people off the rocks and thereby saving them from disaster. On the other hand, it might be said that a lighthouse is a device which aids people to know where they are and to steer a safe course through uncertain waters to a safe haven. Certainly the latter description is the more preferable one.

Perhaps we should consider some further attributes of lighthouses. Lighthouses are built on firm ground, usually rock. They are lasting; they are enduring. They give forth a penetrating, far reaching light. And they give forth this light continuously, strongly and penetratingly yet with never an interruption to offset their steadfastness.

Consider also that in spite of their tremendous value, lighthouses are stark, relatively unadorned and perform their functions in lonely spots. They are certainly not places of pleasure and can hardly be said to be lived in at all. They are attended by a few of the faithful and while used by many, only the most occasional interest is directed toward them by the masses of people. They might be said to exist in lonely splendor having little appeal as places of interest to the average person. They have a good reputation and a solid record of usefulness. They may be admired and praised from afar but when approached the terrain surrounding them does not attract the average and a certain degree of heartiness is necessary, as well as a certain capacity to endure loneliness and privation, to associate oneself long with them. In short, lighthouses are not places of pleasure even though they are places of tremendous service.

In much the same sense psychiatry is trying to serve as one of the lighthouses of the world, serving mankind in many ways.

It sheds light on the nature of man's mind.

It guides those in trouble to find better solutions to life's problems; and

It illuminates the fundamental roles of the home, school and church — other beacons which man has used for centuries to aid him in finding his way to maturity, happiness and well being.

Since you have chosen to invite me, a psychiatrist, to speak to you today let us look, first, at the light

which psychiatry offers — a better understanding of the nature of man's mind, how it functions, develops and matures.

The mind of man is sensitive — so sensitive that it requires the most careful handling and training in the early years of life to the end that the ego (personality) becomes strong enough to gain confidence to perform work and participate in some few pleasures of life. This sensitivity must be so skillfully met and modified that man gains a feeling of worth and can enjoy the esteem accorded him by those around him. It must be remembered that the mind at birth is an instrument which seems to be devoid of higher feelings. That is, at the beginning of life it has only the capacity to feel loneliness, fear and resentment. It has a small latent capacity to feel contentment and joy. It must be given experience that will neutralize these negative emotions, that will create and maintain an emotional equilibrium. If these basic feelings are not neutralized by love, interest and affection and the capacity for joy expanded, the mind can become cold, cruel, socially ineffectual, contentious and even violent.

Putting it in its simplest terms, to offset selfcenteredness, pettiness and vanity the mind must be taught and given examples of generosity and cooperation to imitate continuously during the early growing years. To offset fearfulness the mind must be exposed to those adult individuals who possess buoyance, optimism and positiveness.

In other words, the mind is basically selfish and narrow in vision unless opened early to the inner satisfactions of service, honesty, generosity, cooperation, altruism, truth, fair play and love of beauty.

This is so fundamental and has been documented so often in case after case of juvenile delinquency, in studies of children from broken homes and in studies of the mentally ill, that I mention it only as a reminder — a reminder that in spite of all our technological progress, in spite of what we have learned of how the mind works, that the making of a good mind, a healthy mind, is a long, slow and tortuous process. It is as difficult now to develop a mature individual as it was a hundred years ago. May I suggest that we are not making the best use of what we know and that we are not producing enough *good* citizens, happy and healthy in mind, cooperative and thoughtful in action.

*Presented at the 21st Annual New England Health Institute, Waterville, Maine, 1955,

What then are the processes that will develop this sensitive, untrained mind, with its selfish, predatory and exploitive instincts?

PHASES OF PERSONALITY GROWTH

Psychiatry has not only come to understand more about the nature of mind but has also set forth certain principles on the rearing of children and has formulated phases of personality development which if understood will help neutralize negative trends. There is a valuable monograph by John Bowlby, M.D.* which touches on this closely. I recommend it to you and quote from the first chapter the following:

" what is believed to be essential for mental health is that the infant and young child should experience a warm, intimate, and continuous relationship with his mother (or permanent mother-substitute) in which both find satisfaction and enjoyment. Given this relationship, the emotions of anxiety and guilt, which in excess characterize mental ill-health, will develop in a moderate and organized way. When this happens, the child's characteristic and contradictory demands, on the one hand for unlimited love from his parents and on the other for revenge upon them when he feels that they do not love him enough, will likewise remain of moderate strength and become amenable to the control of his gradually developing personality. It is this complex, rich, and rewarding relationship with the mother in the early years, varied in countless ways by relations with the father and with siblings, that child psychiatrists and many others now believe to underlie the development of character and of mental health."

A typical example of such early life emotional deprivation is the case reported by D. Levy, M.D.*

" an eight year old girl who was adopted a year and a half before referral. After an illegitimate birth, the child was shifted about from one relative to another, finally brought to a child placing agency, and then placed in a foster home for two months before she came to the referring foster parents. The complaints were lying and stealing. The parents described the child's reaction to the adoption as very casual. When they brought her home and showed her the room she was to have all for herself, and took her on a tour of the house and grounds, she showed apparently no emotional response. Yet she appeared very vivacious and 'affectionate on the surface'. After a few weeks of experience with her, the mother complained to the husband that the child did not seem able to show any affection. The child, to use the mother's words 'would kiss you but it would mean nothing'. The husband told his wife that she was expecting too much, that she should give the child a chance to get adapted to the situation. The mother was somewhat mollified by these remarks, but still insisted

that something was wrong. The father said he saw nothing wrong with the child. In a few months, however, he made the same complaint. By this time, also, it was noted that the child was deceitful and evasive. All methods of correction were of no avail The school teacher complained of her general inattention and her lack of pride in the way her things looked. However, she did well in her school subjects, in keeping with her good intelligence. She also made friends with children, though none of these were close friendships. After a contact of a year and a half with the patient the father said, 'You just can't get to her', and the mother remarked, 'I have no more idea to-day what's going on in that child's mind than I knew the day she came. You can't get under her skin. She never tells what she's thinking or what she feels. She chatters but it's all surface.'"

Such a case history and study tells us what neglect of a child in the first year of life will do to irreparably traumatize the personality. Other studies show us what happens when the child is faced with the decisions and responsibilities surrounding toilet training. These are the *first* responsibilities, they are *intimate* responsibilities and they are *cooperative activities* from which the best and worst in human relations are developed. Here is the great opportunity for the adult (the parent) to accept — truly accept — *all* of the human nature including its less attractive side and here is the first opportunity for the child to assume some responsibility, self-direction and self-control. A delicate psychological mechanism is in action here initiating many of man's important personality traits such as good will, honesty, generosity and reliability. Sadly enough, the average parent is all but completely unaware of the personality traits which can be cultivated or ignored at this time — the second or third year of a child's life. This phase has been called the cold war of the nursery and it sets in motion much of the stubbornness, resentment to authority, cruelty, and revenge attitudes which characterize all too much of daily human activities.

LEARNS ABOUT OTHERS

As the child begins to have some mastery of his excretions he begins to invest more psychological energy in the men and women in his life. In the third to sixth years of life he begins to question how much shall he love his mother? Are women, as represented by mother lovable and desirable. Will he be allowed much use of her? How close and intimate may he get? What punishments are latent in the environment if his emotional interest takes on a sexual coloring? How can he emulate his father and his male activities? The female child at this phase of development, may or may not be provided an opportunity to begin love of a male — her father. Father may be an interested friend or may be stern, forbidding, and preoccupied with many other things and so exclusively related to mother that the

youngster may never capture the germ of thought that men will some day be interested in her. She would, and should, like to emulate her mother and take on female attributes. Is she encouraged to do this by her parents? Rarely. It is implied that it would be safer and more pleasing to them if she were an outer spirit — a good and sexless little girl. So definite is this implication that all too often she remains this good and sexless little girl right on through life — all of it.

During the years from six to twelve horizons widen perceptibly. This is the time of life when a youngster takes on the characteristics of the heroes of history, religion and sport as well as of current times. The mechanism of identification plays an important role at this age period. The child patterns himself after an older brother or a teacher. Ego energy is freed for consolidation and learning. He learns about many things past and present which have influenced adults and he thinks about them. But the over-protectiveness of the modern adult rarely permits these ideas expression and discussion. This child is considered too young and often parents get too much satisfaction out of the child's dependency and helplessness.

An important phase of personality development is, of course, adolescence when young people are on the threshold of life. This is the period when their minds should be working actively on emancipation from family, vocational choice, preparation for the responsibilities of marriage and parenthood and getting ready for useful citizenship. But, and I cannot forbear making a comment here too, how often does this occur? Practically never. Everyone seems to duck the responsibility. Last year in a study reported on by the Ladies' Home Journal,* it was estimated that 100,000 fathers deserted their families in the year 1954. I would guess that an even greater number of wives are anxious, dissatisfied with their jobs, critical of their husbands, irritable with their children and consulting doctors for physical or emotional disability. In both instances, the responsibility for their adolescent's growth is only a secondary consideration!

These briefly then are the phases of early personality development. These are data well known to you all, I am sure. Psychiatrists name each of these phases of growth, the oral, the anal, the genital, the latent, the adolescent phases, hoping that knowledge of them will be used by everyone to increase understanding of how mind and body develop together.

HOME MOST IMPORTANT BEACON

To my mind, we have not sat down and thought enough about these findings and planned accordingly. But I defer any suggestions about planning now. Let us consider, rather, other beacons man has used to guide him in the past. These are the social institutions, the home, the school and the church. Because of time limitations and because I believe the home to be the all important center for good and evil, I will speak only

briefly about the church. I believe that religious institutions have too little time to make an extremely deep impression upon people, including the child. I admit, of course, that time is not the all important factor and I also realize that if people took religion into the home it could be more effective. But in spite of growing church membership and an estimated increase of twenty-five per cent in church building for the coming year I do not believe the solution to our current social and personal problem lies in more religion. The home has many more activities that lead to mental and physical health. Religion does not insinuate itself deeply enough into the lives of people to insure mental health and to my mind it never will. Those who maintain that more religion in and of itself will solve the world's problems do not have the answer, I fear.

We are in an era that is putting great emphasis on the emotional needs of the child. This has been called "the century of the child." Dozens of magazines, conservative ones at that, stress in every issue the need for better understanding of children, the best place to deliver the baby, how to meet his nursery problems, his grade school problems, his teenage problems; where classes can be had for father, where well-baby clinic discussion groups are available for mother. It would thus appear that we are putting a lot of energy and thought in the right direction. But are we? There is such a thing as proper *timing* to life's progress and to my way of thinking *our timing in regard to developing the home as the lighthouse for mental health and good citizenship is badly off.*

Let me point out that even though today we are giving adult minds more information few of them can make use of it. It should have been given to them when they were growing children in the home. For instance, my nine-year-old daughter is vitally interested in babies, kittens, dogs, birds, farm animals and all their activities. She is interested in and has a feeling for the birth, the growth and learning processes. If we did not discuss this with her at home, how much of this curiosity would remain with her at twenty-one? How many nine-year-olds, or children of any age, in fact, are taught about the needs of the young when they can absorb it and integrate it into a useful body of knowledge and feeling? Few indeed! Rather they are taught about sports, competition, clothes, travel, money, and maintaining social position. By the time they marry and children appear most of them know less about parenthood than anything else in the world. Knowing little about it and caring little about assuming responsibility, it is small wonder that the sensitive minds of the thousands of infants born daily get poor nurture and grow, all too soon, into neurotics, delinquents, criminals, alcoholics, disgruntled citizens and eventually unwilling and inadequate parents.

It appears to me, bearing in mind the nature of the mind as we *all* know it, that educators should run, not walk to their school offices and modify the curriculum

to include teaching, *at every grade level*, about how a home and family can make itself a mentally healthy place — a place where real social values are taught and where good citizenship abides. I realize, of course, that the single educator is not a free agent. He is responsible to his school and community as well as established educational regulations. This means that the problem really comes back to people like you in this room at this moment. You who are parents and you who are in key health positions are responsible for influencing public thinking about the home.

TECHNIQUES FOR CHANGE

Let me spell out what is needed to influence public opinion.

(1) We must give the home, as a source of good citizenship, as high a place in our thinking and striving as we do to bringing peace and outlawing atomic weapons for purposes of war.

(2) We must promote, in the field of social welfare, a campaign greater than any ever put on by big business to the effect that character integrity and mental health are homemade products.

(3) We must enlist the aid of education, in its great task of moulding the mind, to include within its curriculum *at all levels* all that is known about the working of the mind, particularly that which has to do with methods of passing on from generation to generation capacities for love, friendliness, happiness, cooperating work and observance of the golden rule.

This can be done if we mobilize our efforts properly. If manufacturers of cigarettes can do it, if car manufacturers can do it, if soup makers can do it, so can we. They have impressed us with slogans which move millions of people to action. I maintain that we can popularize "the good life" and make people work toward it if we will but acknowledge the necessity and desirability of it and see how rewarding it can be. People enjoy the wonderful mechanism of the modern automobile when they know how to operate it and care for it. People enjoy good food when they know how to prepare it. People will enjoy family life when they are told how to prepare for it, operate it and create it.

Let us not, however, minimize the difficulties of doing this. Let us make allowance for and compensate a bit for changing times. There are fourteen times as many families classed as urban dwellers today than 160 years ago. There are innumerable labor saving devices in the American home. This means there are fewer chores and jobs for children which help to inculcate discipline and family cooperativeness. There are, instead, more cars and TV sets which help to divide the family. More must be done for and with the child at crucial moments of his growth and the modern parent must be a more articulate citizen than his grandparents were. In other words, discipline and work which were learned in former years by *shared activity* with parents now

have to be imparted in other ways. That this is not being done is shown by various studies, as for instance, a recent one undertaken by the National Education Association.* Thirty-four hundred teachers were questioned at random as to the most difficult problems they faced with their pupils. Maintenance of order and discipline in the classroom were the principal problems named. According to the report, young people of today are anxious, restless, and reject discipline. They are rude, uncooperative, refuse to carry out assignments, are inattentive and generally irresponsible.

These are, of course, "home-made" problems and is it not true that those problems evolve from the fact that the parents of these children were never taught the responsibilities of parenthood in their own homes? It is true that the school is an extension of the home and the two should work hand in hand. However, the basic ingredients of personality must originate in the home. Home has always been important but today, more than ever, it stands as the primary source of good or evil. In fact, the more I develop this theme of lighthouses in this changing world, the more I see that the home is the great basic source of light in this world. Though a home may vary in design and location it is the one installation worthy of being called a lighthouse. And it needs more efficient and capable keepers, people who know their business, people with wisdom, patience and dedication. Lighthouse keepers are, of course, every parent, every person who works with children to create and strengthen new young minds.

Lighthouse keeping is a responsible job. If I may be permitted to play upon words it is much more important than light house keeping. The progress of mankind cannot continue if child rearing is indifferently thought of as a byproduct of a race through life for fame, fortune, careers and Cadillacs. Homemaking and child rearing is serious business to which there should be much more planning. Much of our planning, incidentally, has consisted of creating agencies of care for the home's failures such as child guidance clinics, youth study centers and psychiatric clinics. I believe in these agencies, of course, and would not wish to hinder their development, but I believe we have turned our interest too exclusively to *repair of defects* rather than concentrating on building healthy personalities. It would be far more economical, not to mention the suffering and heartache that could be avoided, if a child could be taught the necessities for health in the beginning of life. Rather than spending such tremendous sums in patching, propping up and rehabilitating those who are handicapped by ignorance, misunderstanding and neglect, should we not begin to spend money on teaching the essentials which go into building the mature and happy human personality? A few words about these necessities.

WHERE SHALL THE LIGHT SHINE

A lighthouse beam revolves in a complete circle

touching all four points of the compass, North, South, East and West. So, the wise adult has four important focal points — necessities — which he must establish in order to chart his course comfortably through life. These are (1) love, (2) discipline, (3) joy and (4) search for truth and beauty. These are the things, I believe, which will meet the needs of the human personality and give it security and direction through life. Let me expand this a bit.

Love, according to Erich Fromm,* is "a capacity for the experience of concern, responsibility, respect and understanding of another person and the intense desire for that person's growth." Now we already know that a human being is love hungry, sensitive and capricious and hence prone to veer toward suspicion, jealousy and hatred. A family and community giving out love, interest and concern will aid in building security, strength and stability to combat these hazards.

A continuous, kindly and interesting disciplinary program, which will enable a child to practice cooperation and the techniques of effective endeavor, will further ensure the development of healthy personality. I wish I had time to develop this theme because it seems to trouble so many parents and people in supervisory positions. But I assure you that most people have never tried to get far beyond the stage of impatiently complaining of how difficult discipline is. They have never disciplined themselves to outline the few, simple principles necessary to obtain cooperation and then consistently and resourcefully put them into daily operation. The human mind is lazy but it can be intrigued to productive activity, relatively ungrudgingly if we but master the technique of teaching it. Let us define discipline. It may help to clarify this point.

Discipline is the systematic training and/or subjection to authority. While this has often been over-done resulting in frustration and resentment, and while some individuals have interpreted both progressive education and psychiatric doctrine as advocating the relinquishment of discipline, it seems fully evident that discipline is not only necessary for healthy development of the individual mind in organized society, but it can actually be introduced with sufficient enthusiasm, versatility, praise and reward as to become a pleasure to the mind. Properly introduced, discipline is the antidote to laziness, inertia, and lack of enjoyment of living. It subverts straying into personally and socially destructive pursuits.

But I must pass on to the third focal point — joy. We are a guilt-ridden lot who refuse to believe that joy is compatible with virtue and work. We distrust ourselves and believe we are pursuing slothful and indolent goals unless we approach life grimly and severely. We look for a scolding from the boss or some indication of the wrath of God if we smile too often or treat life lightly or humorously. We need more humor, more laughter, more play, more recreation. Bridges will still get built and land will still get tilled if we do not go at it with clenched teeth, tense muscles

and rising blood pressure. Let us think about joy, then, as being the prodigal use of energy for pleasure as opposed to the more routinized direction of energy toward social usefulness which comprises work. Joy is the open, articulate expression of pleasure as the result of success or achievement in either work or play, or the conscious expression of pleasure at making a joke, sharing a beautiful scene or stimulating others to pleasure in the sharing of an idea, a dance or other social intercourse. Periodic appearance of such activities in the lives of people has been shown to promote emotional and physiological health — to such a degree that this should be taken out of the class of luxuries and put in the class of necessities.

The pursuit of truth and beauty is little more than a nice sounding cliché to most people. It possibly sounds effete and dilettantish. But our great leaders have sought it and all great men have had an active preference for the best ends of life. They were willing to struggle to create better values, to guarantee a greater degree of happiness, wisdom and refinement to our existence. The phrase alludes, I believe, to a hunger deep in the minds of all people who long for a graciousness, a magnanimity and a moral consciousness that is more mind and soul satisfying than mere social and economic success. It is a leaning toward and touching the activities of every day life with some of the artistry which geniuses in the fields of art have created but which, for most, lies unused and useless like toys and candy behind a show window to the penniless child outside looking in.

These then are the necessities, the values, that man must establish in order to build mature personality and give it security and direction. These are the bedrocks of strength upon which our lighthouses are built.

Summarizing, I must again repeat that the home is the lighthouse that should send forth the strongest beam. All else is accessory to it. To it must go knowledge about personality development; to it must go principles that will help perplexed parents rear their children. Let us make, then, home and family life a more basic source of health and truth so that instead of using our community health agencies as life savers of the home — we use them as means of strengthening the home. Would it be wrong to say that our ultimate goal, yours included, is to see that the need for such agencies becomes outmoded? I hope this does not sound too confusing or too heretical at a meeting of professional people such as you.

Possibly it has seemed paradoxical that I, your keynote speaker, have emphasized the values of the home to such a degree. I do it because, if you have a clear notion of what the home can do and should be doing, and will make use of this knowledge in your agency, you will be using one of the most potent forces available in your fight against all aspects of human illnesses.

Accident or Suicide?

A. WARREN STEARNS, M.D.
Billerica, Massachusetts

Since the publication of my article on teen-age suicide¹ a year ago, there has been considerable discussion as to whether or not these cases were accidental or suicide. In a general way, medical examiners (or, at least, several of the more prominent ones) believe they are accidental deaths, while psychiatrists, who as a group have had little or nothing to do with these cases, regard them as suicidal. A number of new cases have come to my notice. These have been discussed freely with psychiatrists and medical examiners, especially Dr. Richard Ford. Dr. Ford, in general representing the opinion of the medical examiners, believes very definitely that they are accidental deaths, basing this opinion upon a number of criteria: in the first place, the entire lack of any discernible motive for suicide; second, some evidence that these acts are repetitive; next, suggestions of a sexual component such as women's clothing, nakedness, et cetera. My opinion, representing in general that of most of the psychiatrists with whom I have talked, is that they are suicidal. The pathologist hypothesizes, in so far, as I understand, that this is a masochistic sex orgy in which the individuals are getting some satisfaction, probably sexual, from this procedure, and that they accidentally go too far and lose their lives. It is conjectured that the death may be a vagus death, due to the position of the loops about their necks. It should be noted in connection with this theory, and recognizing the material of which opinions are made, that some times this decision results in the family's getting substantial insurance if it is accidental, or in the person's being buried in consecrated ground, which their religion would not allow if it was suicide, or in an overwhelming sentimental belief that a masochistic accidental death is less ignominious than suicide! For this reason, it is proposed to publish some further cases with a discussion of the above moot question.

The crucial question seems to be concerned with motive. If this procedure is carried out with an intention of killing themselves, everybody grants that it should be called suicide. On the other hand, even though the result is fatal, (and it would seem almost inevitably fatal) if the intent was sexual satisfaction and not self-destruction, everyone seems to agree that it might be called accidental.

One question that has been discussed is as to whether or not these cases form a group with enough features in common so that they can be called a clinical syn-

drome. For this reason, it seems wise to enumerate some of the factors which justify their being considered together.

In the first place, they are all young males without especial psychopathic background or symptoms. While the peak age is 14 years, some of them are young adults. They are all hangings², frequently with a loose noose. In some cases they are fully clad, others partly clad. Some are entirely naked, and some are dressed in female attire. It is a solitary act, often taking place in cellars, attics or remote places. There has been a preoccupation with female clothing in some cases, and there is a tendency to tie themselves up, the most extreme being chained and padlocked. They are without obvious motivation. In fact, one of the strongest arguments in favor of accident is the apparent lack of suicidal motivation. Their feet or bodies are often touching the floor and there is usually some evidence of their standing on some object while arranging the rope. The neck is rarely broken, death usually being due to strangulation or suffocation. No abortive cases have been discovered. They rarely leave notes.

A few additional will be presented with discussion. While the clinical data on these cases are readily available, and a good deal of the material is a matter of public record, it seems better to give no identifying data in this report.

Case Number One. Born on July 13, 1913, his age being 34 at the time of his death. He was a truck driver and a helper on trucks, thoroughly masculine. He had been married and lived with his wife for about eight years. They had a child who was nine years old. He was supposed to pay his wife but was always in arrears. When they were living together, he had spoken of killing himself and her, also. His wife hadn't seen him for several months, as he was living with his mother. She stated that while living with her he had dressed as a woman. She found several pieces of women's clothing in his belongings, and the only reason she obtained from him was that he was fond of them. She had found in his suitcase a pair of high-heeled, open-toed women's shoes, apparently the ones he had on at the time of his death. In his bedroom was a numerous assortment of women's clothing mixed in with his own clothes. He was last seen alive on Wednesday and was reported as missing on the following

1. Journal of the Maine Medical Association. Vol. 44, No. 1, January, 1953. Page 16.

2. In *Quaternaria, Roma 1954* is an article by A. C. Blanc, on some prehistoric drawings in a cave in Northern Italy. The drawings suggest hangings similar to the ones we have described.

Monday. The medical examiner's report stated, among other things, "This is the body of a well-developed and well-nourished white male, wearing a rayon flowered dress. Both sleeves are torn at the seams, and there is a small tear in the back of the dress. No stains are found. Silk stockings cover the legs up to the mid thigh. The feet are covered by open lace shoes, women's type. A padded brassiere is present as well as a girdle and beneath this a brown undershirt and white shorts on which are found two small blood stains in the mid-line posteriorly in the region of the anus. They meas-

ure 3 and 2 cm in diameter. There is also a cheap piece of jewelry on the upper part of the dress. A .22 calibre rifle lay lengthwise on the divan. The rifle was fully loaded but apparently had not been fired."

The cause of death was given as asphyxia caused by strangulation, suicidal hanging. There was a radio box nearby, upon which he apparently had been standing, and it was apparently kicked aside. There is an excess of rope. There was rouge on the lips, and the artificial breasts or falsies are seen in the photograph.



Case No. 1

Case Number Two. This is the case of a twenty-seven-year-old, married, white male, who was last seen alive on August 31, 1953. He was found hanging in the rear of his father's plumbing shop by his sister when she came to work on September 3rd, after the Labor Day weekend. He had stepped off a step ladder in order to carry out his purpose. The body was clothed in a woman's silk slip, girdle, panties, and pumps. The feet were clothed in a man's brown socks. In the office adjacent to the shop were two paper bags containing girdles, bras, slips and other items of female attire. Examination revealed the body of a well-developed and well-nourished man with black hair and brown eyes, which showed beginning decomposition. The tongue protruded between the teeth and lips. There was a deep furrow across the neck from a piece of webbing attached to a rope suspended from an overhead pipe. There was a piece of webbing about the left wrist. There was a piece of string tied about the penis and scrotum and loosely attached to the rope about the neck. The death

certificate was signed: asphyxia by hanging — suicide while mentally deranged.

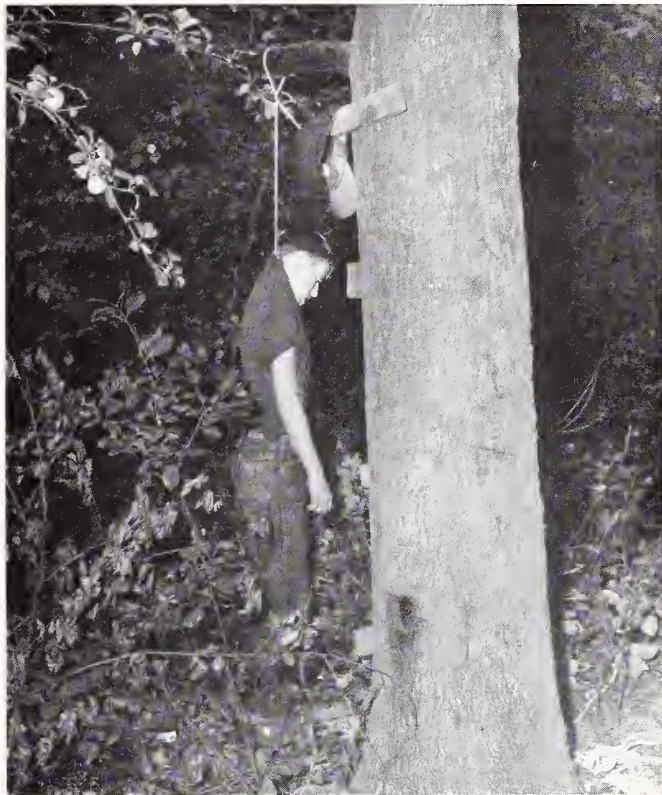
Case Number Three. This is the case of a nineteen-year-old, single, white male who was a second year student in college. His family was prosperous and had recently presented him a secondhand car. He was last seen by his family on April 22nd before they went to New Hampshire for a weekend and left him at home alone. He failed to keep a date with his girl. She was much upset, as he had never broken a date before. She called him on the telephone and went to his home. She felt he was home because his car was in the garage with the doors open. She felt something was wrong and wanted to call the police, but her father dissuaded her from such action. When his family returned, they opened the door to the third floor upstairs and found the body clothed in underwear. The body was hanging in the third floor stairwell with a belt around the neck, attached to a clothesline fastened to the rail guarding

the top of the stairs. The line went from the neck, over the rail, and down to the left hand which was stretched upward over the body. Examination revealed the body of a well-developed, large, young white man with blue eyes and brown hair. There was a deep rope burn about the neck, extending backwards and upwards over the occiput. There were rope burns about the left hand and wrist. There was a contusion over the left tibia and over the outer aspect of the right thigh above the knee. There were early putrefactive changes. The death certificate was signed "Asphyxia by hanging. Suicide while depressed." A month later this man's mother appeared at the doctor's office in great mental anguish. She was a devout Catholic and protested the finding of suicide. She felt that her son was practicing rock climbing in the third floor stairwell and that it was an accident. She was informed that she could request an inquest and that the judge could make a finding that could overrule a medical examiner, but that an inquest was public.

Case Number Four. This is the case of a 13-year-old boy in the eighth grade, who was found hanging by the neck from a tree near his school. The body was found dangling on a length of clothesline slung over a limb only about six feet from the ground. He had been playing cowboy with a neighbor's boy until 4:30 p.m., when the neighbor's boy went home for lunch. When he returned in about thirty minutes, the boy had disappeared. He did not show up for supper, and the family became worried, as they knew he was going to the moving pictures with his older brother. He had planned to get to bed early, as he was going the following day to caddy for his father in a state golf tournament. The boy had always been happy and never had got into trouble. It will be noted that this boy's feet were touching the ground. There was a stone nearby on which he apparently stood while adjusting the rope. There has been no suggestion of any mental disease or emotional disturbance.

Case Number Five. This is the case of a minister's son who was born May 25, 1933. He went right along in school. Appeared to be a normal boy. Not a particularly good student. In the second year at college, which he entered under conditions and attended in the evenings. Worked part time at a hospital. Came home occasionally. Had made up his deficit in evening school. Mother stated that the last few weeks this fall especially he had seemed very normal and in better than usual spirits.

Was ardently in love with a fellow student. They were together constantly. He had known her intimately for at least six years. They had had an understanding for more than two years. He spoke of her as his wife and frequently wore a wedding ring. They rode horseback together a good deal. He liked to play cowboy, dressed in cowboy clothes.



Case No. 4

The family consisted of father and mother, stable people, and a brother, now 24, who is a student in a divinity school.

The father would rate him as a normal boy in every way. Mother not so sure. When adolescence began, 6 or 7 years ago, he had a period of some hostility to his father, but latterly had been more friendly with his father and quarrelled with his mother somewhat. Mother states that anything he thought to be so was right and everybody disagreeing with him was wrong. However, the family were congenial. He was very close to his brother. Was well liked at the hospital where he worked. Described as a quiet boy.

On Sunday, December 7th, he went home, had Sunday dinner with the family, and it seemed to be an unusually happy day. He returned to work Sunday night. Went to a prize-fight with another houseman at the hospital. The houseman states he seemed to be very happy; that he put up a small bet on the fight. He had told his brother, who had only seen him two or three times this fall, that he had some kind of gambling racket. Spoke of making \$30 or \$40. The brother did not know what this was. The other houseman doubted it. Said he knew him very well and he was not the kind of boy that would gamble except to make a very small wager on a fight.

Sunday night he returned from the fight and presumably went to bed. Monday morning he did not show up. The door was locked. The other houseman knocked on the door and, not seeing his car in the yard, assumed he had gone out. Tuesday morning the same. They opened the door and found him, fully clad, hang-



Case No. 5

ing to a pipe, with a heavy chain which had been used for taking ash barrels out of the cellar. Another piece of chain was around his wrists and another piece twice around his ankles, binding them together rather tightly. All of these chains were padlocked.

On the desk was a can of some kind of shaving cream and a glass. Some of this seemed to be on the seat of his pants. He had on sports pants, that is, short pants, and a tremendous pair of boots similar to those worn by parachutists. His pants were smeared with feces, his hands covered with feces, and there were two smooches of feces, one on either cheek. On the tables, chairs and everywhere about the room were photographs of his girl.

There was a note on his desk which read something like this: "If I lose, I shall wear the britches; if I win, I shall wear?? Signed ??? B."

Interviewed his father and mother, who had seen no evidence of any mental change; in fact, they repeatedly said he seemed the best he had ever been this fall. In no trouble at school or elsewhere, as far as they knew. There was a psychology book on his desk, but he was not particularly interested in psychology but was obliged to take it. There were a number of large stains of what appeared to be semen on his pajamas and on the bed.

In an hour's conversation with the father and mother and brother, nothing was brought out indicating that he was any different from the run-of-the-mill of boys, and nothing was uncovered indicating motivation.

There was a chair nearby, and it appeared that he stood up on the chair and arranged the chains and then stepped off.

Case Number Six. This 20-year-old soldier had been home on furlough three days. The afternoon of his death, he had been for a ride in his own car with his wife and his wife's sister and her boy friend. They returned to his father-in-law's home, at approximately 5:15 p.m., having left the sister and her friend. Shortly after their arrival at the father-in-law's home, the soldier and his wife were left alone. She then describes the events as follows: They fooled around somewhat and played with each other, but did not have any sexual relations. Finally he said he felt tired and wanted to take a nap, and she volunteered to go down across the road to her grandmother's. This was the last that she saw him alive. As nearly as she can ascertain this was somewhere around 5:45 p.m. She went down the road to visit friends, but they were not at home. So she went to visit other neighbors, where she remained until the body was discovered. The father-in-law returned from his ride with his wife and small child, and he immediately noticed that a light was on in the cellar, and when he had left, the house was all dark. The little boy, who was eight years old, ran ahead of them into the house and down cellar and discovered the body. The body was hanging from a two-inch overhead water pipe, being suspended by a leather belt, which had been passed around the pipe and was firmly imbedded underneath the victim's chin anteriorly. The head was rather sharply flexed forward, the tongue was protruding, there was frothy mucoid material around the mouth and on the tongue, and evidence of lipstick on the lips. The entire face, scalp and neck were markedly cyanotic, the tongue being enlarged to approximately three times its normal size. Directly underneath the body was an old apple box, which on one side was composed of two small slats on which the victim had been standing. It appeared as though one of the slats had given way, and one foot of the victim had been pushed down through the broken slat and lay at a semi-flexed angle at approximately the floor level. The other foot was still semi-supported on the box. The body was attired in a tee shirt and a pink feminine girdle. This girdle was made of a rather heavy silk, and it had a zipper front and a section in the crotch that was closed with hooks and eyes. There was a marked postmortem lividity of the arms, hands, and the feet and legs. On unhooking the crotch section of the girdle, the penis was found to be semi-erect, markedly cyanotic; the scrotum also showed postmortem lividity. The body was warm; there was no postmortem rigidity. Estimated time between death and discovery of the body was approximately one hour.

The wife stated that the boy, though seemingly normal and doing a very good job in the army, had been absent from home on a good many occasions when, according to his wife, he was working at Company Headquarters, although he was supposed to be there only once a month. On one of these occasions he came back home drunk, and she suspected that he had been out at some sort of a party. His attentions to her in a sexual way had also



Case No. 6

become more diversified and intense, with attempts at various deviations which she had not allowed. She was a chronic bed-wetter, wetting the bed every night, which had been the cause of some concern to both of them. On the night before his death, he undressed and, while naked, put on the girdle that she had just taken off, with the statement that he just wanted to try it on to see how it felt. She was rather surprised at this, and this was the first overt act of anything in this nature that she had seen. There is no history of his bringing home any sordid literature or pictures during the course of their marriage. That night they had sexual relations as usual, and no more was said of the girdle episode. She did volunteer the information that, following some of their sexual relations, he did not seem to be satisfied and would go into the bathroom and attempt to complete the act in some fashion that she did not know about. The girdle which the boy had on was identified as belonging to his mother-in-law. It had been lying on the top of her dresser in her bedroom when his wife went down to visit the neighbors.

No notes were found anywhere around the house, and there was no evidence that he intended to commit suicide. An important problem arises here as far as his military insurance is concerned, in deciding whether this is suicide or accidental death. It is the opinion of the medical examiner that this is accidental death by

hanging, inasmuch as there was no intent of the patient's taking his own life.

It will be noted, however, that the belt is around the pipe making a loose noose. It would appear that the boy, standing on the box, had put his head through the noose. Whether the slat broke, or whether he tipped over the box or stepped off it, is entirely a matter of speculation. The turgid penis has no differential value, as this is peculiar to hanging. No evidence is suggested of any erotic manipulation of the genitalia. He had rouge on his lips and had taken off most of his clothes and wore a girdle. Those who consider this accidental death will speculate and interpret the data one way. Those who look upon it as suicide will do the same. Personally, I believe that, when a young man takes off his clothes, goes down the cellar, gets up on a box, puts his belt over a pipe, sticks his head in a noose, and then kicks over or steps off the box, the burden of proof is on the one who says it isn't suicide.

Case Number Seven. This is the case of an 18-year-old young man. On the morning of March 22, 1953, he ate his breakfast about 8 o'clock. This consisted of orange juice, eggs, toast and coffee. Somewhere around ten o'clock he remarked that he was going for a walk either in the woods at the rear of his home or along the sea shore. He seemed in his normal condition and discussed his plans to leave home that evening, as his leave was over, and he was obliged to return to duty in the Navy. When he left for his walk, he was wearing civilian clothes. No one at the home has reported that he had any bundle when he left. Sometime between 11 and 12 o'clock that day, the wife of the caretaker on an estate nearby saw him passing the garage. The caretaker lived over the garage, and a driveway led from the front of the garage up an incline to the big house, unoccupied at that time. She thought he might be planning to visit the house, so kept watching him. He passed the garage and followed a rough road leading to the marshes. She said he had a brown paper parcel under his arm and kept looking backward rather furtively. She is the last person known to have seen him alive. He was reported missing that evening, and a search was started the next morning. The sea shore was watched closely, as it was presumed that he had been drowned. On March 25, a young man heard of the search, and he and his sister decided to join the searchers. The young man said he had been friendly with the deceased, having attended a private school with him. Also, that they had often visited the marshes together as the deceased at one time had kept a small boat tied up at a low bridge there. On the strength of the above, the marshes were the first place searched. They found the body suspended from the limb of a tree very near the bridge mentioned above. The discovery was made about 11:45 a.m. The medical examiner was notified shortly after, and he went to the scene with a police lieutenant, where they made an examination.

They found the civilian clothes in a clump of bushes near the tree. They were carefully folded and laid on the boy's shoes, each of which contained its stocking. With the clothes was a large brown paper bag.

The body was suspended high enough for the feet to clear the ground by six or eight inches; directly under the feet were fragments of rotted wood. Four or five feet away was a section of a building timber about 12" x 12" and two feet long. One side was quite badly decayed. It seemed that it was too far away to be used as a "take off." The medical examiner and police lieutenant figured that someone among the first comers had rolled it to one side. The body was fully clothed in women's apparel. The garters of the panty girdle were fastened to the long silk stockings. One of the large-size woman's shoes was on the ground beneath the feet. Stuffed under the front of the dress were silk bandannas and scarves rolled up to imitate breasts. The body was suspended by a silk scarf, the knot was under the angle of the lower left jaw and the fabric above the knot was spread out enough to conceal the most of the face. The pressure of the taut fabric had distorted the mouth and nose. The hands were tied behind the back. The medical examiner and police lieutenant studied this item very carefully. It was apparent no second party was involved. The hands were tied with a silk belt from a dress. He had fastened one end to his left wrist very tightly and made a permanent noose at the other end. Then he held the left hand behind his back, carried the belt across the back to the right, passed it around the right side across the abdomen to the left back, where he probably held it by the left hand. Then he put the right hand behind him, and with the aid of the left slipped the noose over his hand. He was wearing fabric gloves. The medical examiner removed the right hand from the noose, and while it was rather a tight fit, the boy himself could have adjusted it very readily. The tree stood in a wide open space and could be seen at a considerable distance. The news had spread rapidly, and a considerable crowd was gathering, so the medical examiner had the body taken down and covered with a blanket. A few moments afterward a newspaper photographer appeared. The medical examiner did not know he had been notified, otherwise he would have waited to get a view of the suspended body. The Naval Hospital requested that the body be released to them for autopsy. As the lad was on active service, it was presumed the Naval officials had prior authority, so the medical examiner did as requested.

The police lieutenant visited the mother at her home that day, and the medical examiner had an interview with her later. The lieutenant said she told him that, the morning the boy disappeared, she had given him a shampoo while he was in the bath tub. She told me that the boy was born at the Massachusetts Memorial Hospital, that as far as she knew the delivery was normal, that her health during pregnancy was good

except for a severe attack of whooping cough during the later months. She said that the baby was somewhat of a weakling but picked up rapidly while in the hospital. She also stated that the boy was a very "slow" student in contrast to an older brother but that this fact did not seem to disturb him. She also gave a history of a fractured skull resulting from a fall from a horse but that the symptoms of retardation were noted prior to the accident. He was treated at the Massachusetts Memorial Hospital for the fracture. When questioned closely concerning the relationships between herself and the boy, she took refuge behind her grief and the nervous shock of the tragedy. She insisted she did not know where the women's clothing came from and stated she refused to listen when someone tried to describe how he was dressed. The boy attended the local public school nearly four years but did not return for the seventh grade. It is presumed it was then that he went to private school. The principal of the private school has since died and but one of the teaching staff remains. She did not have the boy in her room but remembers him and states he was a "problem case" but can give no details except that he was "slow." The public school nurse remembers him and also rates him as a "problem" but cannot explain why.



Case No. 7

Case Number Eight. A 14-year-old boy was helping his father who was janitor of a three-story building. The boy went upstairs to the third floor and didn't come down. He was found in a closet, hanging with a necktie around his neck attached to a nail in the door. There was a trash barrel nearby, and it appeared he had stood on that, fastened his head in the noose and then stepped off. The father had seen him ten minutes before, and there was no suggestion or motive for suicide, nor anything in his general behavior or emotional life suggestive of suicide. Other boys said he was constantly playing with neckties. Somebody had thrown some neckties in a trash barrel which they were taking out. The boy had taken one of these and used it as a noose. This would seem to eliminate any extensive premedita-

tion. This case was called "accident" by the medical examiner.

Case Number Nine. This is the case of a ten-year-old boy, in a well-adjusted family. Mother left home at 9:15 a.m., taking the boy's sister to a Bible School and leaving the boy in bed. About 11:00 or 11:15 a.m. the girl came home and found her brother, with a belt around his neck, hanging from the top hinge of the door of his room. His feet were on the floor, and he had fallen forward; urine and feces were on the floor. He was said to have had a chance to go to Tennessee on a vacation trip, but his parents thought it was more of an expense than they could afford, and he was disappointed. The body was entirely naked.

Case Number Ten. This is the case of an eleven-year-old boy, of good family, very sensitive, rather timid and reserved. He was a talented painter. He was well liked by schoolmates. The boy frequently went out on long jaunts by himself; was a Boy Scout. The night before the event, he expressed disappointment that he wasn't doing better in his Boy Scout work and hadn't been advanced. There was no unpleasantness about this, and he did not dwell upon it; there were no arguments or difficulties. He was doing well at school. He went to his room at the usual time, a typical boy's room strewn with his belongings. His door was shut; family did not open it, because they didn't wish to waken him. He usually got up at seven. However, this particular morning he didn't appear at 7:30. His father entered the room, found the bed empty, and his son dead — hanging in the nude on a clothes rack, his book strap was tied and double knotted about his neck. He was hanging limply, knees bent, feet just off the floor, his tongue protruding and purplish and oedematous. His penis was erect. The book strap was tied to a wooden clothes rack. The floor was covered with his clothes and his playthings. His parents stated he had seemed happy and acted normally and cheerful, and they could make out no reason why he should have committed suicide.

Case Number Eleven. This is a fourteen-year-old boy who lived with his mother and stepfather in one of the less desirable sections of town. In spite of this, his home life was apparently pleasant, the family living closely as a group, and there was mutual fondness between him and his stepfather. He got good grades in school, was an active Boy Scout, and had numerous friends of his own age.

He had at least one "girl friend," but apparently there was no serious romance or any past sexual indiscretions. Careful questioning of acquaintances and family revealed no obvious motive for suicide.

The father and mother both stated that on the evening before death, the three of them watched television, the boy retiring about midnight. They went to bed shortly afterward and observed nothing until about 8:30 the next morning. At that time they heard him in the

kitchen getting his breakfast. They went back to sleep and heard nothing further. They arose about 10:00 a.m. and, not seeing the boy or hearing him, assumed he had gone out. At about 10:30 a.m. the mother went into the boy's bedroom to get her coat to wear to church and found him hanging from his closet door. She called her husband who came in and lifted the body down and called the police.

The method of hanging was reconstructed thusly: The boy had taken a piece of 1/4" manila rope, one of several pieces found in the room, tied perfect hangman's knots in each end, placed one loop over the top of the door near the top hinge, extended the rope along the top edge of the door and over the upper outer corner. This would allow the second noose to hang about 4 1/2 feet from the floor. He placed the noose about his neck without tightening the noose (the knot mark was well above the left ear), and then slumped. The father stated that the knees were close to, if not touching, the floor.

The body was fully clothed in sport shirt, trousers, socks and shoes. The room was orderly, and there was nothing about its contents to give a clue as to the possible motive.

Autopsy was not performed.

Case Number Twelve. From what I have been able to gather from the investigation of the police and the state's attorney, the following are the essential features: The family consisted of a mother, father, the decedent, an 11-year-old boy, and his brother, age 7. The parents were well educated, and the father was a white-collar worker and also health officer of this small town. The family were well thought of in the neighborhood. The mother also taught music to a small number of private students. The decedent is said to have been a bright student, and his teacher said that she knew of no unusual behavior. He was supposed to be well-adjusted, interested in his surroundings and presented the usual physical and mental alertness of his age group. At about 5:00 p.m. on a Saturday, the boy was known to have gone upstairs. At the time the mother was giving a piano lesson, and the father was not at home. Some time later the 7-year-old went upstairs and says that he found his brother slumped over with a noose made from a belt about his neck, and the free end of the belt tied to a post of the bed approximately 30" above the floor. The boy then went downstairs and found a razor. He did not notify his mother, because he had been instructed to remain quiet while she was teaching. He then returned upstairs and cut the belt. A short time later, he notified his family.

An investigation by the police disclosed that the decedent was lying as he would have lain if the brother's story were correct. The belt had actually been cut through. It is said that he was fully clad and that the clothes were completely buttoned. The undertaker removed the clothes at the funeral home and verifies this.

He states further that there was nothing unusual about the underclothing or genitalia.

By the time I was notified the body had been completely disrobed, washed and embalmed. My autopsy findings were essentially negative except that I found definite evidence of marks of the belt and buckle on the anterior and lateral aspects of the neck, hemorrhages into the neck organs, subcutaneous petechial hemorrhages in the scalp, and severe congestion and petechial hemorrhages within the brain. The boy was pre-pubescent. Nothing further is known concerning any possible sexual activities previously or any morbid curiosities.

Case Number Thirteen. This is the case of a 14-year-old white male student who was thought to be of a higher than average intelligence but who was somewhat of a misfit apparently in that he did poorly in school. He was repeating the current year and was destined to repeat again next year. He had been in other schools (all private) before coming to this one. He lived in New York City and, I believe, was an only child. Nothing of his earlier life or of his parents could be stated with any authority. One observer mentioned that the boy had an unusual interest in things "criminal." During one vacation spent in Washington, D. C., he took several days browsing through the (?) files of the F.B.I.

On the day of his death he seemed as usual to his schoolmates and teachers. In fact, he seemed pleased to receive the praise of the coach of the particular baseball team that he managed. A game was scheduled there at the school on that day, but an inordinately heavy rainstorm, (with hailstones the size of golf balls) caused a postponement. It was also parents' day, although his parents were not present. Because of the postponement, he returned to the ball field in mid afternoon to put up the bases, etc. He was missed at supper time, and a hunt ensued. He was found a few minutes after seven in the evening in a small shed adjacent to the field, used to store baseball paraphernalia. He was hanging by the neck with a baseball base strap which had been nailed to a beam. The roof of the shed was very low, and his position was one of almost sitting, the buttocks being only a few inches off the floor. Around his head was a child's shirt pulled tightly and held in place by the strap around the neck. It gave the effect of a hood. There was no sign of any real struggle. He had been dead for perhaps four hours plus or minus when found. No note was found to my knowledge.

This case was considered to be and was signed out officially as a suicide. There were some who felt that this might have been an accident. However, as the medical examiner, I felt the evidence warranted the opinion of suicide.

Case Number Fourteen. This is the case of a 12-year-old boy who went to the basement to play with a puppy. The father stated that the boy had previously

been warned about playing with ropes around his neck, and was told many times that he might get one around his neck some day and nobody would be around. When the boy failed to come upstairs after about half an hour, the father went down to the basement to investigate, and found him hanging. He was a seventh grade pupil. None of the family or friends had ever seen any evidence of depression or morbid mental symptoms.

Case Number Fifteen. This is the case of a 16-year-old boy who was home on leave. His father and mother had gone away with the car. When they came back, they found him hanging in the garage. He had climbed up a stepladder, put a rope over a beam, and swung off. He was completely clad. He had made arrangements for a date the next day and seemed to be in good mental health, although he was described as having been somewhat morbid and worried because of a large nose. The following note was found:

1:30 P.M.

Dear Ma:

This is the best way out. If I don't do it now I know I will have to in the future. It is no fault of yours or anyone that I am doing this. I have been thinking of doing this for a long time especially when I was on the - - - . When the Union deligate insulted in front of everyone on the ship and they all laught. That is why I got off the ship. I knew then I will never get another ship. Because I always make mistakes when I talk. Half the time I don't know what I am talking about. When we got that ship - - - did all the talking. As you know - - - and I have split up so I have know one to lean on to.

There is a lot of other reasons. I will mention some. As you know I only have a few friends who I think a lot of, H., J.L., F.C., J.L., R.S. If you see any of these fellows tell them I was happy to have them as friends. Tell E.W. that I have nothing against her and I am sorry I won't be able to be best man at the wedding. I don't no why she thinks I don't like her. I think she is a swell kid. Well she won't have a brother-in-law after all. I hope M. son won't look like a homely character like me. It looks as if I am getting on another subject so I will get on what I was planning to say.

I never got to parties or have girl friends like other fellows do and feel pretty bad about that. I will always be lonely.

The friend who owns the gun does not know what I am planning to doe so I hope he doesn't feel bad because he lent me the gun. So *don't* get him in trouble.

You, dad, M., D., tried to make things pleasant for me. As I look back now I appreciate all you have done for me. Don't feel sorry or anything. You yourself know that I will never amount to

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The President's Page

AS PREVIOUSLY ANNOUNCED the 1955 Maine Medical Association Fall Clinical Session has been suspended to allow our members time to attend the American Medical Association Meeting being held in Boston at Mechanics Hall, November 29 to December 2.

Important subjects include discussion of the antibiotics, cancer, seizures, anemia, the cortisones, adolescent problems, industrial medicine, all by recognized authorities. Such noted experts as Dr. Paul D. White will discuss the epidemiology of heart diseases; Dr. Sweet, a member of the Geneva Conference will discuss atoms for peace from a doctor's point of view; the Nobel prize winner, Dr. Weller, will cover the polio question; and Dr. Ravdin will talk on the acute surgical abdomen, to mention a few.

From more than 200 original papers submitted in nation-wide competition, 75 were selected to be given in twenty-minute talks to be followed by five minutes of discussion.

A very special panel headed by Dr. Crosby, President of the American Hospital Association, made up of unusually well-qualified experts from various fields in medicine, will discuss the effect of prolonged medical training, including specialty board training, on the present-day practice of medicine.

RECREATION: A truly comprehensive booklet will be given each registrant providing full information on where to eat, where to play, where to shop, what to see, and where to rest.

A new and particularly attractive feature is the presentation by the Boston Symphony Orchestra of a special program under the directorship of Dr. Charles Munch. He will be heard on Thursday, December 1, at Symphony Hall beginning at 8:30 p.m. In order to achieve a fair distribution of tickets, application is to be made at the time of original registration.

While no formal registration will be held for the ladies, generous provision for them has been made by the Women's Auxiliary of the Massachusetts Medical Society. A hospitality suite will be maintained at the Hotel Sheraton without charge where information, tea and coffee and rest rooms will be available throughout the meeting. A sherry party will be held at headquarters of the Massachusetts Medical Society to which the ladies are cordially invited and the Museum of Fine Arts will hold eight specially conducted tours for American Medical Association members, also without charge.

Don't miss the greatest medical show on earth!

MARTYN A. VICKERS, M.D.

President, Maine Medical Association

The Journal of the Maine Medical Association

DANIEL F. HANLEY, M.D., Brunswick, Editor

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Across The Desk

FEDERAL MEDICAL SPENDING — JULY 1, 1955 TO JUNE 30, 1956 *Washington, D. C.*

The record shows that this year the Department of Health, Education, and Welfare with almost a 1/3 increase reaches a new high mark in spending for health and medical programs — more than half a billion dollars. Only two other agencies' medical spending is over the half billion figure, Defense Department and Veterans Administration.

Compared with last year, HEW is spending 32% more in the health fields. The increase — \$127,754,900 — is explained largely by sharp boosts in funds for Hill-Burton hospital construction, for vocational rehabilitation, for medical research and for the medical care of the indigent, and by a \$30 million appropriation to purchase Salk vaccine and finance inoculation campaigns.

Total federal health spending also will reach a new high of over two and one quarter billion dollars during the current fiscal year, about \$2,268,800,000 a 6.4% increase over last year. Even in a national budget well up in the billions, this figure for federal medical-health spending is not inconsequential. It is about 15 times the amount needed to maintain Congress and the federal courts, 14 times the total budget of the State Department, and four times more than is spent by either the Labor Department or the Post Office Department. Expressed another way, Uncle Sam puts up \$15 of every \$100 spent by the American people (publicly or privately) for health and medical purposes, from purchase of toothpaste to financing cancer research.

FOLSOM WARNS AGAINST SOCIAL SECURITY EXCESSES

In the opinion of Secretary Folsom, "there is a limit to the social security taxes the people may be willing to pay." He sounded the warning against unsound expansion in a talk delivered recently on the work and objectives of his Department of Health, Education, and Welfare. He declared:

"Our social security system has remained sound

because Congress has rejected proposals that might weaken or destroy it. We must always be careful that proposals for new benefits will preserve the essential justice and strength of the system. We must remember there is a limit to the social security taxes the people may be willing to pay to support the system in all the years ahead."

DISABILITY INSURANCE

Without benefit of open hearings and with no opportunity for amendments on the floor, the House passed by a vote of 372 to 31 a series of amendments to the Social Security Act, including

compulsory disability insurance for disabled workers who reach age 50. The bill is now pending in the Senate Finance Committee, which plans extensive hearings next session. The AMA is

HOW TO VOTE BETWEEN ELECTIONS

Election day is the only day you can vote for candidates. But there are hundreds of days when you can vote for representative government.

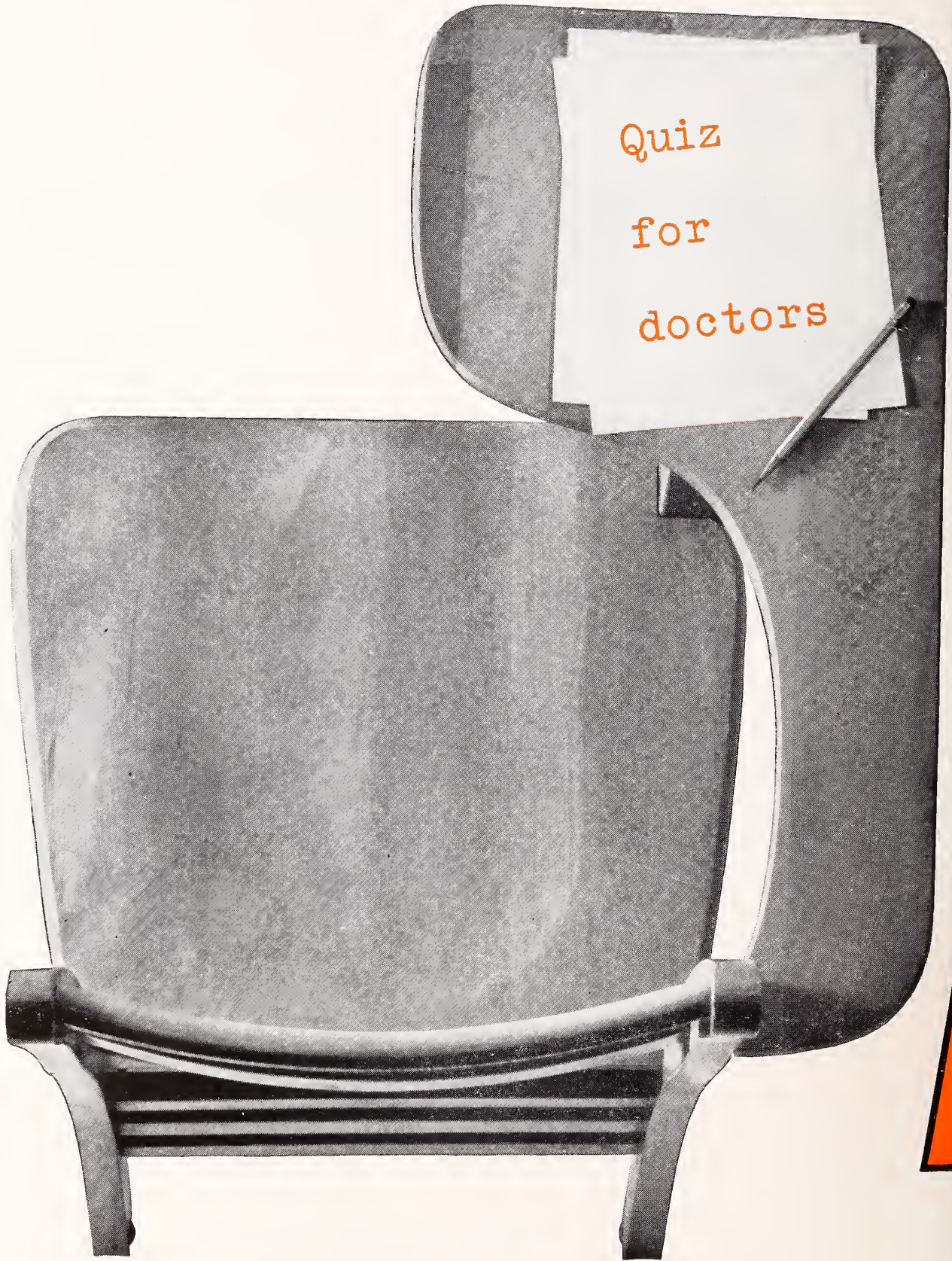
Every time you make your views known to your legislators you are voting for good government. A Congressman can act with resolution when he knows what his constituents think.

About 10 per cent of the bills in Congress were originated by its members. The vast remainder — 90 per cent — came from government bureaus.

This points up the need for better communications between the people and the **lawmakers they elect.**

Every U. S. Mailbox
Is A Ballot Box For
Representative Government

Quiz
for
doctors



(you probably know every answer!)

Q. Which is today's most widely prescribed broad-spectrum antibiotic?

A. ACHROMYCIN — it's first by many thousands of prescriptions.

Q. What are some of the advantages of ACHROMYCIN?

A. Wide spectrum of effectiveness.
Rapid diffusion and penetration.
Negligible side effects.

Q. Exactly how broad is the spectrum of ACHROMYCIN?

A. It has proved effective against a wide variety of infections, caused by Gram-positive and Gram-negative bacteria, rickettsia, and certain viruses and protozoa.

Q. In what way are ACHROMYCIN Capsules advantageous?

A. For rapid and complete absorption they are dry-filled, sealed capsules (a Lederle exclusive!) No oils, no paste...tamperproof.

Q. Who makes ACHROMYCIN?

A. It is produced — every gram — under rigid quality control in Lederle's own laboratories and is available only under the Lederle label.

ACHROMYCIN*

Hydrochloride
Tetracycline HCl Lederle



LEDERLE LABORATORIES DIVISION AMERICAN *Cyanamid* COMPANY PEARL RIVER, NEW YORK

*REG. U.S. PAT. OFF.

Across The Desk

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opposed to disability insurance because: (a) it would project the federal government into medical practice through machinery necessary to supervise medical determinations of disability, (b)

it would be a further drain on the OASI Trust Fund which is pledged to meet other obligations, and (c) the cash payments might undermine the U. S.-State rehabilitation program.

ADA WANTS OPTIONAL OASI BUT CHANCES SEEM REMOTE

Dental profession, like the medical, is divided on question whether its members should get in on Federal social security coverage. Every year since 1949 ADA House of Delegates has voted on it and every year — until now — it has been rejected. At Miami in 1954, vote was so close that the result of the one in San Francisco the other day came as no surprise. By substantial margin, ADA came out for *voluntary* participation in old age and survivors insurance. This may be viewed as a progressive but futile step. Under existing law, clergy is sole occupational group to which optional coverage is extended and it is highly unlikely Congress will give same privilege to medicine, dentistry or any other profession.

At AMA convention in Atlantic City last

June, a Michigan resolution supporting voluntary participation was put on a Board of Trustees siding. Subject will be brought up again in December when House of Delegates meets in Boston.

House-passed bill (HR 7225) pending in Senate Finance Committee includes dentists and specifically excludes physicians. White House wants both covered, on compulsory basis. Favoritism which House displayed to organized medicine was due partly to lobbying pressures, partly to spirit of compromise to lessen AMA antagonism to bill's disability insurance provisions. In its final form, however, HR 7225 probably will give same treatment to MD's and DDS's, but with optional coverage offered neither.

OTHER LEGISLATIVE VIEWS

ADA's House of Delegates, in its first meeting since opening of 84th Congress, rejected Democratic plan for disability insurance on ground that its emphasis upon "compulsory" vocational rehabilitation is undesirable; *favored creation* of a *Federal Council of Health*, as recommended by Hoover Commission; indorsed Defense Dept.

career incentive program; urged Veterans Administration to give more attention to dental care in mental hospitals; expressed suspicion, though not outright disapproval of Administration's proposals to inaugurate Federal reinsurance of health prepayment plans and guarantee mortgage loans on health facilities.

MAINE MDs ON THE NATIONAL SCENE

New York City

M. Tieche Shelton, M.D., Augusta, Chairman of your Legislative Committee — flew to New York City and worked with AMA's Regional Conference on Legislative Affairs. His report will be in the next issue of this 'Journal.'

William A. Monkhouse, M.D., Portland, has agreed to write up the 'Gems' from the Medico-Legal Symposium — which he attended at the Hotel Statler. From advance reports — Both of these sessions were exceptionally interesting and worthwhile.

Washington, D. C.

A dozen government officials appeared before the AMA's Council on National Defense this week at its meeting in Washington, giving the council first-hand the administration's policy on current national defense problems. Officials included Dr. Frank B. Berry, Assistant Defense

Secretary for health and medical affairs and members of his staff; Maj. Gen. Lewis B. Hershey, director of National Selective Service; the Surgeons General of Army, Navy and Air Force; Arthur S. Flemming, director of the Office of Defense Mobilization; and Surgeon General Leonard S. Scheele of Public Health Service. Also appearing before the council was Dr. William B. Walsh of the National Medical Veterans Society.

Charles W. Steele, M.D., Lewiston, worked with AMA's Council on National Defense and arranged for the State of Maine to be represented at two other C. D. Conferences.

Ralph A. Goodwin, Sr., M.D., of Lewiston, at the Washington, D. C. symposium on the Atom Bomb and Emergency Medical Services.

Clyde I. Swett, M.D., Island Falls, at the Medical Society's sixth Annual Conference on Civil Defense.

New Orleans

Eugene H. Drake, M.D., of Portland, was appointed *Director* of the American Heart Association at the organization's annual meeting. Wilbur B. Manter, M.D., Bangor, President, represented the Maine Heart Association.

Portland, Maine

Charles R. Geer, M.D., of Portland, the new President of the Maine Chapter of the American Academy of General Practice, was elected at the annual session held in Portland October 19, 1955.

ARMY AWAITING APPROVAL OF CALL FOR 297 DOCTORS

Army's application for 297 physicians to be supplied by Selective Service is but the first of a series of call-ups which are expected this fall and winter. Replacements will be needed next year in far greater numbers than they were in 1955. Medical advisory committee to Selective Service, chaired by Dr. Howard A. Rusk, met here recently on Army's application for doctors but

declined to disclose what action was taken. It was third time Rusk committee had considered the request, action having been postponed on previous occasions.

The 297 physicians sought by Army, under doctor-draft law, are earmarked for February induction and April activation.

DR. BERRY'S ANNUAL REPORT

In his report, just published, for year ended June 30, 1955, Assistant SecDefense Berry (Health & Medical) hails progress made with the MEND idea of encouraging medical schools — with Federal financial aid — to weave military and civil defense subjects into their curricula. His report also reaffirms support of pending legislation (HR 483, passed by House and now awaiting Senate action) to authorize commissioning of osteopathic physicians in armed forces; minimizes practical advantages of establishing a U. S. Armed Forces Medical Academy; reviews status of residency-deferment plans now in its first year.

In connection with latter subjects: Teaching hospitals now making arrangements for residency

appointments next July should take warning. While some 500 draft-vulnerable young doctors are to receive deferment to begin residencies next year, under Defense Dept., and Selective Service dispensation, this is only a fraction of total which hospitals will need. And since military medical replacements will run at least twice as high in 1956-57, in comparison with 1955-56, draft deferment for purpose of starting, continuing or completing residency training is going to be much harder to get.

Defense Department has scuttled its plan to follow Hoover Commission recommendation for abolition of Assistant Secretaryship in charge of health and medical affairs.

TAX DECISION GIVEN ON FIRM'S HOSPITAL OUTLAY

A private business firm which makes financial contributions to a hospital construction fund, conditional upon the hospital's making certain of its facilities available for exclusive use of the company's personnel, may not make its payments deductible either as a charitable gift or as a

business expense, Internal Revenue Service has decided. The ruling, involving parties who are not mentioned by name, is published in Oct. 10 issue of "Internal Revenue Bulletin" (Rev. Rul. 55-616).

YORK COUNTY OBSERVES NATIONAL DIABETES WEEK

Diabetes Detection as practiced by the York County Group deserves a big "hats off" from us all.

Melvin Bacon, M.D., of Sanford, "tells you how" in an article which appears on the following page.

MEDICAL FILMS

A revised list of films available through the A.M.A. motion picture library has been prepared and copies are available upon request from the Committee on Motion Pictures and Medical Television of the American Medical Association. This catalog lists 83 medical films suitable for showing to medical societies, hospital staff meetings and other scientific groups. The catalog also includes 36 health films of interest to physicians who may be called upon to speak before lay audiences.

Frank W. Barden, M.D., Biddeford, Chairman of your Committee on Industrial Health, writes that he has secured a good film strip on "Plant Health Program," and he will make it available to any medical group that requests it.

Frank W. Barden, M.D.

Medical Director, Saco-Lowell Shops
Biddeford, Maine

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A County Observes National Diabetes Week

MELVIN BACON, M.D., Sanford, Maine*

This year National Diabetes Week, sponsored by the American Diabetes Association, will be observed country wide from November 13-19. It will be the 8th annual observance by this association. The purpose is for the public education and detection of Diabetes. It is believed that there are one million known diabetics in the United States and another million unknown diabetics. It is this latter group that this association through its affiliates is attempting to discover. The York County Medical Society under the directive of its physician members plan an all out drive and observance of this period for the second year. Because of the success attained last year in this endeavor it was deemed of interest to present the plan of this group for this year.

Seventeen physicians have been selected to organize programs for their respective areas. These are as follows:

T. Anton, M.D., Biddeford
M. Bacon, M.D., Sanford
A. M. Bonanno, M.D., Berwick
L. Carpenter, M.D., Limerick
J. R. Downing, M.D., Kennebunk
S. D. Drummond, M.D., Bar Mills
R. F. Ficker, M.D., Kennebunkport
H. J. Hopkins, M.D., Old Orchard
L. R. Jellerson, M.D., N. Berwick

C. W. Kinghorn, M.D., Kittery
L. C. Lesieur, M.D., Saco
A. W. Magosci, M.D., York Village
P. C. Marston, M.D., Kezar Falls
M. A. K. Moulton, M.D., W. Newfield
J. J. Murphy, M.D., S. Berwick
C. E. Richards, M.D., Alfred
G. R. Smith, M.D., Ogunquit

Plans call for the free examination of urine for the detection of Diabetes by all the members of this society and the various hospitals in the county, during this period. These hospitals are:

Buxton-Hollis Hospital, Bar Mills
Goodall Hospital, Sanford
Notre Dame Hospital, Biddeford

Trull Hospital, Biddeford
Webber Hospital, Biddeford
York Hospital, York Village

These specimens will be tested with the Benedict, Galatest or Clinitest methods. Nurses will conduct the detection drive in areas where there are no physicians and distribute diabetic literature. In addition, all those showing positive urine tests for sugar will have the opportunity to have blood sugars done at any of the aforementioned hospitals at nominal fees during this period on referral of their personal physicians. In addition 300 posters will be distributed all over the county, indicating who to see and where to go to be tested. Diabetic literature will be distributed at each physician's office, at the various hospitals in the county and at various meetings. About 15,000 diabetic pamphlets were given out in 1954. One minute trailer movies will be shown at various theaters in the county. These are located in Sanford, Kennebunk, Biddeford and Saco. In 1954 about 20,000 people saw a similar film at the various theaters. Radio programs, over station WIDE, Biddeford, Me., WWNH, Rochester, N. H., and WHEB, Portsmouth, N. H., will feature talks and spot announcements on Diabetes, with several physicians as participants. One of the features of this observance is to be a Diabetes Fair which will be held at the Sanford Town Hall, Nov. 17 and 18 from 12 noon to 6 p.m. There will be a variety of exhibits, films, chest x-rays, testing of urines, and distribution of literature pertaining to Diabetes. All will be without charge.

This paper presents, in brief, a plan whereby a County Medical Society may carry on a program on Diabetes during National Diabetes Week.

*Chairman, Committee on Diabetes, York County Medical Society. Other members: S. A. Cobb, M.D., C. E. Richards, M.D. and H. D. Ross, M.D.

Report of Delegate to A.M.A. Public Relations Institute

Your delegate attended the 1955 Public Relations Institute of the A.M.A. held August 31 and September 1 at the Hotel Drake in Chicago. The program was well-planned and executed, consisting of a few key speakers and a number of informal panel discussions relating to public relations activities. Among those participating were A.M.A. department heads and committee chairmen, state and county medical society executive directors and secretaries, professional public relations consultants, writers, editors, officers of the U. S. Chamber of Commerce, and representatives of the radio, television, motion picture, and insurance industries.

Your delegate was somewhat surprised to note that thirty-seven of the forty-two speakers, and more than two-thirds of those attending the institute were non-medical people. The majority of those in attendance were paid executives (principally non-medical) of state and county medical societies, and the remaining minority was chiefly made up of physicians who were members of their state or county public relations committees.

In reporting the content of the meeting, your delegate will outline chronologically information which he considered to be noteworthy; the headings under which various facets of public relations were discussed are copied from the program.

News from capitol city: how to turn words into action.

This panel was made up of the chairman of the Committee on Legislation of the A.M.A., the director of the A.M.A. Law Department, the editor of the A.M.A. Washington Office, and the executive secretary of the Ohio Medical Association. The importance of physicians in general, and members of public relations committees and executive directors in particular, keeping informed of pending legislation was emphasized. It was strongly advised that in matters of legislation, state and county societies wishing to take concerted action should do so through the Washington office of the A.M.A. The Washington office is well-informed in the moods and temperaments of legislators and is in a position to be of considerable help to local societies.

When a local society takes a definite stand on a legislative matter, it is most desirable for the executive director to solicit the cooperation and help of sympathetic organizations outside the medical profession.

Executive directors and secretaries of state societies were urged to keep informed by reading the weekly Washington letter in the J.A.M.A., as well as the monthly summaries of Washington news available from the Washington office to them and to the editors of state journals. The A.M.A. will depend upon executive directors to keep their constituents informed, particularly their state council, county society presidents, chairmen of public relations and legislative committees, and the women's auxiliary. The A.M.A., in turn, will keep executive directors informed.

Planning ahead makes for better public relations.

This panel was composed of two professional public relations consultants, a physician chairman of a county public relations committee, and the executive secretary of the Medical Society of the County of New York.

Seven fundamental principles of a good public relations program were outlined:

1. Know your specific short-term and long-term goals.
2. Write down policies for future reference by succeeding committees.
3. Insure that all members and officers are informed of your public relations objectives.
4. Establish your public relations committee as a planning committee for the prevention of unfortunate public relations as well as treatment.
5. As the basis of the annual report of the public relations committee give an account of what you have done and how it fits into the over-all plan.
6. Consider the importance of research — know the climate and opinions of the public.
7. Plan for the unexpected. ("Public relations is like tea; it shows best when it is in hot water.")

Lack of such a program in one state resulted in the failure to discover a fiftieth anniversary in time to make the most of it. Similar opportunities for excellent public relations, obvious in an anniversary celebration, may be overlooked unless state executive directors and public relations committees are on the lookout for them.

The New York representative related some of the activities of their public relations committee, especially as those activities concerned planning ahead, research, and establishing definite short-term and long-term goals. With the long-range goal of ironing out problems of interference by "health centers" and hospital associations, their committee has set up a series of conferences with representatives of these organizations to find areas of agreement and of disagreement. These conferences have shown promise of bearing fruit in the form of much better public relations for their medical society.

To illustrate the importance of planning ahead, the executive secretary from New York gave an account of the way in which their public relations committee went into action at the first threat of serious bad public relations in connection with the polio vaccine program. Shortly after the contaminated vaccine was recalled, an analysis of the patients who had received injections of that vaccine disclosed that six adults had received injections; a single press article published this fact and it was common knowledge that the vaccine was supposed to be used almost exclusively for children. Here was potential dynamite in the form of bad public relations for the medical profession. Within a few hours of the news release, the public relations committee had gone into action, interviewed each doctor who had given

an adult an injection of the vaccine and determined that in each case good judgement had been exercised. Four of the adults were pregnant women with family exposure to polio. One was a pregnant pediatrician who worked in a communicable disease hospital. The sixth was an adult male and the circumstances were quite interesting; the man was the husband of one of the women who was quite properly receiving vaccine, and the physician lost about 0.5 cc. of the woman's injection when his needle became disconnected from the syringe. In order to complete her immunization he withdrew the contents of a fresh ampoule, administered the other 0.5 cc. and was left holding a syringe containing 0.5 cc. of vaccine. Impulsively he changed needles, told the man to roll up his sleeve, and administered the remaining 0.5 cc. with the comment, "I don't know if this will do any good, but it won't do any harm." These facts were assembled in a release to the entire press and there was no further reference to the matter by any newspaper.

Stimulating public relations interest in the individual member.

This panel was headed by Dr. A. C. Van Dusen, former professor of psychology and presently Director of Public Relations, Northwestern University. Doctor Van Dusen recounted four principles of effective leadership which if followed will, among other things, stimulate the interest of the members of state medical societies in public relations activities:

1. The individual doctor must have the feeling of being understood by the leaders.
2. The doctor should feel that he has a fair share of the good ideas.
3. The doctor should be forewarned of the consequences of certain types of professional behavior.
4. The doctor has got to be shown the advantages, both tangible and personal, of good public relations.

One of the panel members from Texas discussed how their society is trying to create interest in certain non-medical aspects relating to medicine among future physicians. Their society puts on a one-day program each year for the students in each of the three medical schools. The subjects discussed are, "The Legal Aspects of Medicine," "The Business Aspects of Medicine," "You and Public Relations," and "You and Your State Medical Society."

Magazine relations: what do writers expect from doctors.

This panel consisted of writers, editors, and the assistant director of the A.M.A. Department of Public Relations. The writers were unanimous in their opinion that medical news is always very welcome.

It was pointed out that editors of reputable periodicals have an obligation to check carefully on the qualifications of any writer who presents a story. Many editors feel an additional obligation to check the content of medical articles and, at times, consult with the A.M.A.

in regard to content and to the qualifications of doctors whose opinions are quoted in articles.

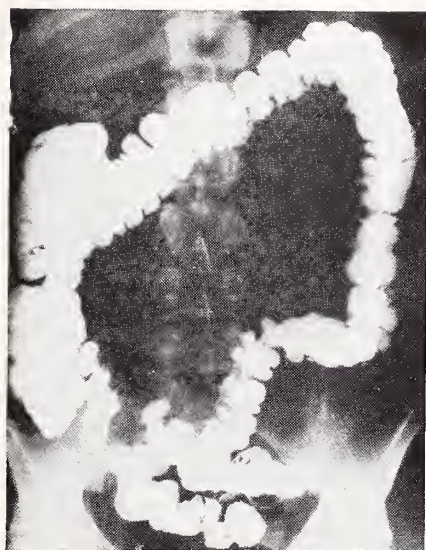
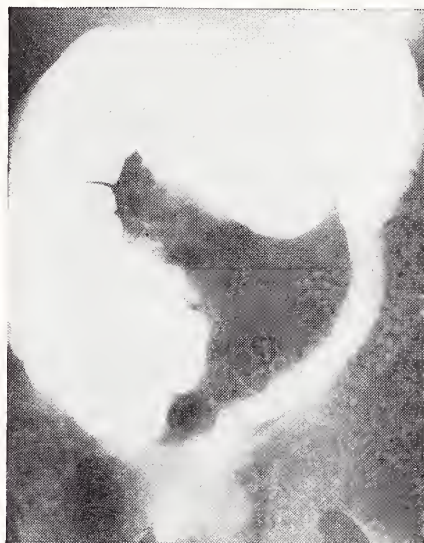
A doctor from the audience asked one of the writers how he felt about having his manuscript checked before publication by the doctor whom he had interviewed. This particular writer felt very strongly that writers in general disapproved of any such commitment for several reasons: in the first place, such a policy implied a lack of faith in the writer's ability to understand, interpret, and record factual information obtained in the interview; in the second place, the policy of manuscript checking too often results in a form of censorship of newsworthy material; and lastly, physicians too frequently forget that the writer is out to obtain and present unbiased factual information, and not to advertise any particular physician or society. This writer felt that if doctors would always acquaint themselves with the qualifications of their prospective interviewers, and talk only to reputable writers, there should be no need for the doctors to insist on manuscript checking. The qualifications and sympathies of writers for national magazines can always be obtained from the A.M.A. Department of Public Relations office in Chicago. Your delegate was not satisfied that writers and editors could offer any such satisfactory assurance at a local level.

Journalists on the panel expressed the opinion that the biggest hurdle they had to face in obtaining medical news which would benefit the medical profession was fear of criticism and even disciplinary action by their society on the part of many doctors. These journalists felt that the active public relations program in Chicago had "dispelled much of the fog in Chicago, but that fog (in the form of fear) was still present in the valleys."

Putting A.M.A. public relations aids to use: case history reports.

This part of the program was devoted to examples of how state and county societies had utilized public relations techniques originating in the Chicago office, using the A.M.A. Public Relations Manual as a guide and obtaining pertinent public relations pamphlets from the A.M.A. The societies represented in the panel had put on positive educational public service programs in their areas.

Harland County, Pa., with a physician membership numbering about ten thousand, has designed their program around the slogan "Safeguard Your Health." Most of the physicians in this county have a red-on-black slogan affixed to the rear bumpers of their cars and display prominently in their offices several A.M.A. public relations pamphlets in a specially designed cardboard pamphlet holder, also marked with the slogan. Utilizing the services of press, radio, and television, the public is continually exposed to information regarding good health and hygiene and how to obtain it in Pennsylvania. Good voluntary health insurance oc-

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"irritable colon" syndrome, the atonic colon following abdominal operations, repressions of defecation after anorectal surgery and in special conditions such as the management of a permanent ileostomy. Metamucil is the highly refined muciloid of *Plantago ovata* (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent.

The average adult dose is one rounded teaspoonful of Metamucil powder in a glass of cool water, milk or fruit juice, followed by an additional glass of fluid if indicated.

Metamucil is supplied in containers of 4, 8 and 16 ounces. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association. G. D. Searle & Co., Research in the Service of Medicine.

SEARLE

Report of Delegate to A.M.A. Public Relations Institute

Continued from page 330

cupies an important place in their program. The Women's Auxiliary has been very helpful and has been kept well-informed of the societies' goals and methods. In addition, Pennsylvania maintains a medical film library which, when supplemented by A.M.A. films, fulfills a real educational need, particularly in schools.

Public relations — getting the bull out of your pen.

James E. Bryan, Author and Public Relations Consultant, gave an erudite and convincing talk on public relations, following a most enjoyable luncheon.

Mr. Bryan referred to Lord Moulton's classification of human conduct with "behavior restricted by law" at one extreme, the "domain of free choice" at the other extreme, and the vast intermediate area in which behavior is guided by "obedience to the unenforceable." Pointing out that, for the most part, the practice of medicine falls into the intermediate area, Mr. Bryan was quite convincing in his assertion that medical public relations will be largely determined by the integrity and morals of those who practice medicine. The best public relations conceivable would be to get every physician accustomed to "playing the part of a good doctor." Your delegate had the definite impression that if the Golden Rule were universally practiced, there would be no need for public relations consultants or public relations programs in medicine or in any other field of activity.

Medical Society Roundup

This session turned out to be too much of a free-for-all to be of any great value in terms of public relations. Certain behind-the-scenes activities of some public relations committees were of interest. More than one speaker cited considerable improvement in public relations after closer working relations had been established between the public relations committees of the Blue Shield plans and the state medical societies. This seemed particularly applicable to the state of Maine in the eyes of your delegate. An example of harmonious relations in one state was cited. Certain provisions in the Blue Shield contract worked a hardship on a small number of subscribers without substantially affecting Blue Shield finances; when this was noted by representatives of the state society, discussions with Blue Shield led to the elimination of certain restricting clauses. In another state provisions removing coverage after certain claims, were taken out of the contract as a result of close liaison, and in another state restricting riders were modified or removed. Cooperation between the two groups prevented the poor public relations inherent in some insurance advertising, which might refer to "disastrous medical costs," "catastrophic illness," etc., where the burden of high cost of illness is, by inference, attributed to the medical profession.

New projects in the public relations fire.

Leo Brown, Director, A.M.A. Department of Public

Relations, outlined plans for new projects during the coming year.

At a national level, the Kiwanis Club is taking an important part in the plans for Farm Week. Mr. Brown pointed out that the planning committee of each local Kiwanis Club for this event should have at least one physician member on it.

County medical societies will be encouraged to offer advisory assistance to school science clubs for the encouragement of children interested in scientific matters. Encouragement of medical projects in science clubs may be along the lines of essay contests, exhibit contests at science fairs with the winning exhibit accepted for exhibition at the annual meeting of the state medical society. During Medical Education Week state and county societies, through their public relations committees, should be prepared to offer integrated information of medical nature as well as using this opportunity to inform the public in regard to how their societies are contributing to public health education.

A new "PR in Action Kit" will be prepared by the A.M.A. for general distribution.

A new pamphlet, "To All My Patients," will be made available through the A.M.A. office; it is hoped that this pamphlet will be reviewed by every physician and that he will support its distribution to the American public by obtaining a supply of the pamphlets for his patients.

The Issue of Social Security.

This eminent panel of economic experts and an insurance actuary devoted the major portion of the morning to a discussion of this issue. The firm opposition of the A.M.A. Board of Trustees to any further extension of the Social Security law was spelled out in a paper by Dr. Thomas Murdock, one of the trustees. The Board of Trustees and the A.M.A. will begin a *national* campaign against extension of Social Security, in the very near future.

The first move by the A.M.A. will be an attempt to educate the entire medical profession in regard to certain pending legislation. Most important among such legislation is HR #7225 which would make permanently and totally disabled persons at age 50 eligible to receive Social Security benefits not now available to others until age 65. In addition to the disability benefits, the House bill would lower the retirement age for women from 65 to 62, extend monthly benefits for permanently and totally disabled children beyond the age of 18, and expand compulsory Social Security coverage to all self-employed professional groups, except physicians. A comprehensive discussion of the grave consequences of such legislation has been summarized in booklet form by the A.M.A. under the title "Social Security — Disability Coverage."

This vitally interesting subject was discussed from

many angles and much of the information presented was new to your delegate. Convincing evidence was presented that the public has been completely duped into believing that the Social Security program is basically an insurance program, whereas actually it lacks the fundamental principle of prepayment inherent in any insurance program. The opponents of Social Security expansion point out that the average person who reaches the age of 65 during the coming year, has a life expectancy of 153 months. Multiplying this by the present monthly Social Security benefit of \$100, reveals a \$15,300 expenditure. This same individual, at the present time, will have paid into the plan about \$700 by payroll deduction. This means *he will receive approximately \$24 for every 50 cents paid!* Such simple mathematical facts, if properly presented to the American people, should convince them that this is not *insurance*. The American people have been put in the position of robbing today's youth (by committing them to overwhelming tax burdens when they become wage earners) to provide security for themselves! The panel not only seriously questioned the next generation's willingness to fulfill this generation's commitments, when they come to voting age, but the panel also expressed doubt that the present generation would endorse further Social Security expansion if they were properly educated in the facts that Social Security must be supported by ever increasing taxation and that it is essentially *not* insurance but actually federal charity.

The medical profession's stake in this program was emphasized to be a most important one. The panel felt that there would be strong pressures against, and little incentive for, sound administration of claims, particularly in regard to total disability.

HR #7225 is Step #2 in the International Labor Organization's "minimum standards for Social Security." These published standards, adopted at the 1952 I.L.O. Conference in Geneva, advocate as Step #7 "*national compulsory health insurance or socialized medicine*."

Organized medicine's number one public relations goal during the coming year will be to enlist the support of the American public, through the American physician, in medicine's opposition to certain further extensions of Social Security.

SUMMARY

1. State medical associations might well continue to expand and improve their public relations programs to the benefit of their membership and the American public.
2. It has been the experience of most states that an effective Public Relations Program cannot be entirely carried out by practicing physicians alone.
3. Large state and county societies have found it advantageous to employ full time personnel, trained in public relations, to carry out the policies of their public relations committees; in smaller societies this function has become the responsibility of their executive directors. In some cases the part time assistance of a professional public relations consultant has been useful.
4. A positive, integrated, and far-sighted public relations program should be organized in accordance with the seven fundamental principles outlined earlier under "Planning ahead makes for better public relations."
5. It is important to convince the individual physician of the personal benefits, both tangible and intangible, to be gained by improved public relations.
6. A system of regular, periodic liaison between the Public Relations Committee of the state medical association and important non-medical organizations within the state (i.e. Associated Hospital Service, State Grange, and the press), is highly desirable.
7. The A.M.A. will exert every effort to enlist the support of the American public, through the American physician, in opposing certain further extensions of Social Security.

Attendance at the Public Relations Institute was a valuable experience. Much of the material presented, and many of the informal discussions, centered around the activities and responsibilities of executive directors and full time public relations employees of county and state medical societies. For this reason your delegate feels it might be beneficial for the executive director of the M.M.A. to attend the institute in succeeding years.

Respectfully submitted,
JOHN R. LINCOLN, M.D., *Member*
Public Relations Committee
Maine Medical Association

Lighthouses In A Changing World

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Greater success with all the problems you have chosen to discuss in the panel will be based upon greater understanding of family life, team work and cooperation. More enlightened family life will be the solid, de-

pendable beacon of direction for the young toward health that will in turn be a source of direction and security to others.

BIBLIOGRAPHY

Bowlby, John: MATERNAL CARE AND MENTAL HEALTH, WORLD HEALTH organization: Monograph Series, Geneva, 1952.

Levy, D : American Journal of Psychiatry, 1937: 106, 332.

Dublin, Louis: THE FACTS OF LIFE, The Macmillan Company, 1951.

National Education Association Study, Chicago, July 1955.

Fromm, Eric: Psychoanalysis and Religion, Yale University Press, 1950.

Department of Health and Welfare

Poliomyelitis Vaccine Distribution

DEAN FISHER, M.D., Commissioner

The means by which poliomyelitis vaccine is available for use by the practicing physician or in public clinics is the result of agreement by the American Medical Association, the drug manufacturers, the national druggists' association, the Federal Department of Health, Education, and Welfare, and others, on a voluntary plan of vaccine distribution control in preference to legal control over a scarce item by congressional action. In view of the support of the voluntary plan by our national organizations it seems that each of us have some responsibility to help the plan work during what may be a reasonably short period of disproportion between supply and demand.

Essentially, the national plan is a means by which each state may get its share of all vaccine released, and in turn each state must make plans which will reasonably assure that all people within the state will have an opportunity for immunization in the order in which they are at risk from poliomyelitis.

Any plan must recognize that the manufacture of this product is a very slow and irregular batch process. Therefore, rate of release of vaccine, amounts to be released, and the times of releases are all unpredictable, and the number of producers is limited.

Each state gets its share of each release by a formula that expresses the ratio between its population in the age group designated by the National Advisory Committee and the national population in the same age group. At the present time the 0-14 year age group is the basis for this determination, and Maine has approximately 0.5% of the population in this group. Thus, Maine's share of each batch released by each manufacturer is 0.5%.

The manufacturers have agreed to sell in each state only this so-called allotment. If the state does not use up its allotment, it will be sold elsewhere, and the short expiration date does not permit much time to be wasted.

Under this voluntary plan the state health departments have been required to determine the portion of the state's allotment that the manufacturer could sell through normal commercial channels, and the portion that had to be held for use in public clinics. For some time now, 85% of each release to Maine has gone into commercial channels, and each release has received publicity through radio and newspapers. It should be ap-

parent that the physician who wishes to purchase vaccine for his private patients will have to order from the manufacturer who has material available at the time, and that if he wishes vaccine from some other producer he may have to wait for weeks or months until that specific producer releases a batch. In the meantime, allotments from other producers may be wasted or lost to other states. For these reasons our news releases specify the size and producer of each allotment.

The 85% of each allotment, the commercial vaccine, should be used only for pregnant women and for children in the 5-14 year age group until a further age group can be designated. Additional ages will be added to this acceptable group when reports of immunizations indicate that the 5-14'ers have been reasonably well covered, and when vaccine is available for additional groups. Adherence to these specified groups by the practicing physician is most important for several reasons. First, if immunizations are done by known age groups, rather than being scattered haphazardly through all ages, statistical studies of the effectiveness of vaccine can be done next year using millions of children's experiences. Otherwise, studies will have to be done on small sample groups. Secondly, if supply remains short, children in the highest risk groups will be denied immunization by the amount diverted to other age groups. Thirdly, voluntary adherence to age and priority grouping is the key to the fair and orderly distribution agreed upon at a national level, and without such a plan many people and many physicians would have no vaccine.

As indicated earlier, each state receives its proportionate share of vaccine, but then there comes the problem of assuring equitable distribution within the state. The county appears to be the smallest intrastate control unit, and thus we must have means by which we can know if each county is getting its proportionate share of the state allotment. We do this by knowing the number of children in the specified age groups by counties and receiving invoices and reports of sales from manufacturers and druggists. From these it is easy to estimate when there has been sold into a county enough vaccine to immunize the known number of children of specified ages (5-14 years). Or by comparing counties, it is easy to see if one or more counties is receiving vaccine at the expense of others. If a county has received enough to immunize its children or is

using vaccine at the expense of others, the manufacturers, upon notice of this fact, will cease selling vaccine in such counties until the others have caught up. Again, the necessity for adherence to age groups is apparent, except in the case of the pregnant woman.

To know the rate at which immunizations are done, and to avoid penalizing a county in which a physician may live but have the majority of his practice in another, we need periodic reports from physicians on the number of private immunizations which are done. For this purpose physicians will be asked to return to us monthly a postal card form on which they will simply indicate by age groups the number of children given a *second* inoculation during the month reported. These forms will be sent to physicians known to have purchased vaccine, and will be furnished to others on request. We hope that physicians will complete and return these forms regularly for they are most important to the entire program. Incidentally, we all hope that the rate of production of vaccine will be such that by sometime next year there will be no further necessity for reports, priorities, controls, etc.

Public clinic programs will be based on the Federal Poliomyelitis Vaccination Act of the last Congress which appropriated \$30,000,000 for the purchase and use of poliomyelitis vaccine by the states. Grants to the states under this law must be used or encumbered by February 15, 1956, and the application of any means test in public programs of immunization is prohibited. Federal funds may be used to assist local programs by furnishing vaccine, equipment, supplies, and paying clinic staff.

Our general plan under this Federal law, and considering the February 15th time factor, will be to continue as long as possible to let the majority of available vaccine go into commercial channels if reports from physicians indicate that it is being used. However, by the first of the year, the commercial share of vaccine will have to be reduced if we are to accumulate enough material for any appreciable clinic program.

In small communities our plans will provide for offering at least two injections to all children in the acceptable age groups who have not up to that time received immunization through either the NFIP program or through their private physician. In the larger communities we will offer the same program but for practical reasons it may have to be done by five year age groups. With some exceptions, such as in unorganized townships, these clinic programs will be under local sponsorship and local conduct with advice, assistance, record forms, material, and, if necessary, financial aid from the State Department of Health and Welfare. This program will continue throughout the remainder of the school year, and each clinic will probably be offering first shots to some children, seconds to others, and thirds to the smaller group whose

immunizations were begun last summer or early in the fall. The February 15th deadline in the Federal law does not mean that our program must be complete by then, but it does mean that all orders for material and supplies must be placed by then. Proper use of these Federal funds will eliminate the need to use the State funds appropriated for this purpose.

The pregnant woman is the only exception to the general plan of working by age groups, and hers is the only instance where we will provide vaccine directly to a physician for use in a specific patient. The physician wishing to be given free vaccine by the Department for a pregnant patient may secure the material by ordering it on a requisition form which we will provide to him at his request. Vaccine will not be provided in the instance where it can be expected that the pregnancy will terminate before a minimum of two doses can be given. Naturally, the physician will not charge the patient for vaccine received from the Department, but he is free to make to the patient whatever charges he chooses for his professional services.

It may be helpful to remind physicians that some 75,000 ccs. of vaccine have been used in Maine without any suggestion of trouble among those immunized or their contacts. Only one case of poliomyelitis has been reported this year among children immunized. This case had one injection of vaccine in June and had onset of poliomyelitis in September. One could only conclude that one dose of vaccine did not give protection.

Nationwide some 7,000,000 children have received one or more injections of vaccine and there have been no reports of untoward results since production resumed under revised standards. Current preliminary reports based on the exposures of the present poliomyelitis season strongly suggest that immunized children have had about 1/4 of the paralytic poliomyelitis rate experienced by the non-immunized. Moreover, it must be noted that few of these immunized children have had a complete series of three injections. About 24,000,000 ccs. of vaccine have been released for use of which some 11,000,000 ccs. have come to the states on the allocation system previously outlined.

All evidence indicates that we are justified in urging physicians to use vaccine as rapidly as it is released. In so urging, we remind them again of the time factors involved, the fact that they are now receiving 85% of the state allotment, that they have this opportunity to immunize private patients, and that early in the year the Department will begin to claim a major percentage of available vaccine for a program of community clinics. Finally, there is this repeat reminder of the necessity for the physician to adhere to specified age groups in his practice, and the necessity for his reporting numbers of immunizations done if our plan for assuring equitable distribution is to work.

Division of Alcoholic Rehabilitation

MAX P. GOOD, Director

The Division of Alcoholic Rehabilitation of the State of Maine's Department of Health & Welfare opened two new alcoholism counseling centers in the Department's Portland and Brewer district offices during the week of October 10, 1955, to bring to these areas a new service which until now has been available only through the Division's office located in the Bureau of Health at Augusta.

Response to this new service was immediate and indicates the pressing need. Interviews were requested by alcoholics, wives and families of alcoholics, clergy, representatives of industry, social and public assistance workers, public health nurses, a president of Cercle Lacordaire and delegates from nearby AA groups.

Several direct referrals were received from a city judge, a police department, two medical doctors and a friend closely associated with an alcoholic in a business venture. In one instance a client was referred back to a medical doctor, who in cooperating with the center, found it practical later in the day to hospitalize the patient in a large general hospital.

At all of these centers the Division welcomes referrals from physicians, clergy, legal agencies, employers, relatives, Alcoholics Anonymous or others interested in any one who has an alcoholic problem and needs help. Nor, is it necessary for the alcoholic to be referred by a third party since he can visit the counseling center through his own desire and on his own initiative.

One of the prime objectives of the Division is to develop adequate screening processes and counseling techniques so that any deserving alcoholic, sincerely seeking help, may be referred to the proper therapeutic resource.

The present schedule for the three Alcoholism Counseling Centers is as follows:

Mondays	Portland District Office 178 Middle Street Tel. Portland 3-5661	10:00 a.m. - 4:00 p.m.
Wednesdays	Brewer District Office 141 North Main Street Tel. Bangor 2-4641	10:00 a.m. - 4:00 p.m.
Fridays	Bureau of Health State House, Augusta Tel. Augusta 3-4511 Ext. 495	10:00 a.m. - 4:00 p.m.

Accident or Suicide?

Continued from page 320

anything since I quit school. I wish I was back there now.

Everything in this letter is true. For once I am telling the truth. Well guess that is all I have to say. Please don't feel bad it is all for the best I do this.

R.

The C. G. is probably on my neck about my age and things. I suppose it will cost to much money to have my nose shorten by a surgeon.

The fact that he was emotionally disturbed had not been apparent to his family or associates. Perhaps this case does not belong in our group because of the apparent motivation.

Case Number Sixteen. This is the case of a 23-year-old white male, who was a veteran, had received the Purple Heart, and was a college student. He registered at a hotel and was found hanging in his room the next morning when the bellhop went to see if he desired the room for another day. The bellhop received no answer and proceeded to force the door open as it had been secured with the chain lock from the inside. He found the deceased hanging on a closet door in the room, having a plastic clothes line tied around the neck, the line running over the top of the door and the other end tied to the door knob on the inside of the door; the body had a piece of pink plastic material tied

around the neck under the clothes line, and the body was dressed to appear as a woman, having the following items of clothing on: a white silk brassiere with rubber cups under same; a lady's health belt under a lady's pink silk panties; a white metal cup was covering the penis and the cup covered with white gauze; the head was covered with a pale pink rubber mask having eye holes and a hole for the lips, the latter hole being covered with red lipstick, a white rubber shower cap on the head; red rubber gloves on the hands and black rubber women's galoshes on the feet.

Besides the usual miscellany carried in a man's pocket, the room contained a brown canvas covered box, about 20" x 14" x 6", containing a piece of white plastic shower curtain, a piece of white rubber sheeting, and one lady's white rubber galosh. A brown paper folder containing lewd sexual stories and also a drawing on paper of a body clothed and hanged identical to the manner in which the above body was found, including the articles of clothing found on the body. The room appeared to be in order, nothing upset or out of place with the exception of a small stool, about 18 inches high, which was standing in front of the door from which the body was hanging.

The father stated that the son was not under the care of a doctor to his knowledge and had never shown any signs of instability or mental disease or disorder. He



Case No. 16

was wounded twice but apparently fully recovered. One associate said he appeared moody, but that he never said anything to indicate it, only that he seemed to sit with a rather moody look in his eyes at times. He was a neat dresser, gentlemanly at all times and not inclined to carouse around. He had no girl friends at the time of his death that anyone knew about. No one could give any reason for his suicide.

Case Number Seventeen. This is the case of a seventeen-year-old boy who had previously made arrangements to go hunting. The friend was to meet the decedent at the decedent's mother's residence at 2:30 p.m. on this date. The friend arrived at approximately this hour and, not finding the decedent in the apart-

ment, went up the stairs to the attic as he knew that the decedent used this part of the building at times as a workshop. On reaching the attic, the friend at once noticed the decedent hanging by a length of clothesline, one end of which was surrounding the decedent's neck and the other end was looped over and fastened to a cross beam supporting the attic roof. The friend noticed at this time that the decedent was completely unclad and, in addition, that what appeared to be a stream of urine was dribbling from the penis of the decedent.

The friend immediately rushed down the stairs to the apartment below and telephoned the police notifying them of his discovery. The friend then remained in the apartment of the decedent's mother until the arrival of the police and did not return to the attic. The police on investigation found the decedent hanging by the neck as previously noted. They cut the body down and released the loop of clothesline from the neck of the decedent noting that the clothesline appeared to be looped around the neck in a loose noose and was not fashioned as a slip noose. Furthermore, the neck of the decedent was found to be completely wrapped around by several layers of strips of white cotton cloth over which the strangling loop of the clothesline had been affixed.

In addition, just to the rear of the body of the decedent, as it had hung suspended from the roof beam, there was a low wooden stool on the seat of which was spread a layer of newspaper. The clothing of the decedent was found to be carefully folded and lying on the seat of another adjacent chair in the attic. Just before cutting down the body of the decedent, the police noticed that the great toes of the decedent's feet were just barely touching the attic floor.

Since this study was completed, several cases have come to my attention in every way comparable except for the fact that a cellophane or plastic bag was put over the head to cause suffocation in this manner instead of hanging.

Medical Schools U.S.A.

The financial structure of medical education has changed since "our day." In 1940, tuition accounted for 35% of all income; in 1950, for only 20%, and in 1955, it is still lower. In 1940, endowment represented 41% of all income; in 1950, 27%. New sources of income are essential if standards are to be kept up and government support kept at a minimum.

1955 is a critical year for the American Medical Education Foundation. A wonderful job was done in building the Foundation to its present level. Because of this, the American Medical Association felt that it could reduce its 1955 seed grant from \$500,000.00 to \$100,000.00. The goal set for 1955 is to make up this \$400,000.00. During the first eight months of this

year the Foundation has enjoyed an healthy increase over last year. *It hasn't been enough!* If the Foundation is to meet its commitments to the Medical Schools; and if the medical profession is to avoid adverse public comment then a special effort must be made this Fall season. The amount of money that is needed is not large if taken State by State. If each State would try to raise an average of \$3,500.00, in additions to its last year's income, the job would be done.

All gifts to the American Medical Education Foundation may be earmarked by the donor for a particular Medical School. Most alumni contributions to a Medical School are reported to A.M.E.F. by the recipient school.

Are You Tax Bait?

Continued from page 307

BAIT #5

Is your return part of a "spot" check?

Take the case of Dr. E. Last year his return was investigated for 5 days and was found correct to the last penny — after 3 investigators had gone through his daily log entries and some 4,000 medical charts.

This year, again, the tax man is at his office to go through his latest return and his books. The Doctor's face turns pale and he feels weak at the knees. He is honest — and harrassed — and feels that lightning has just struck twice. He wonders how come another checkup — wasn't last year's O.K. good enough for at least another year?

The tax man quietly offers a simple explanation: This year Dr. E.'s return had come up as part of a spot check completely unconnected with last year's investigation. This spot check is a scientific sampling of returns made every year by the Government. Call it the Doctor's luck — just like a lottery.

Again we have something the Doctor *couldn't* avoid — stemming from the mere fact that Dr. E.'s return was filed.

The moral is: Even though you were hit last year, don't drop your guard. Always keep your books in A-1 shape. Last year's clearance is no guarantee against the possibility of reinvestigation this year.

BAIT #6

Has your patient been called in to prove up medical expenses on his own return?

Dr. F is a GP and three winters back made many house calls out in the country for a patient and his family. He gave shots of bicillin and penicillin, charged \$10 each time and was paid in cash. Dr. F marked down the payment in his daily log book on getting back to his office. As in many unwary doctor's offices, his assistant made out a receipt leaving the carbon copy in the receipt book and quickly crumbling the original and assigning it to the waste paper basket. It never entered the Doctor's mind to have his girl put the receipt in an envelope and mail it to the patient. It did not occur to him that he might be leaving himself wide open for future tax investigation of his own return.

This patient filed a tax return for that year three years ago, listing \$400 expenses from Dr. F. The patient was called in to prove up this amount. He confirmed the first \$100 by producing the cancelled checks for office visits but as to \$300 claimed for house calls, the patient had no cancelled checks and no receipts. The tax man told the patient to get a letter from the doctor and have the doctor's signature notarized to prove the \$300 paid in cash. The doctor looked at his receipt book and could not remember three years back and found only carbon copies of receipts totaling only \$30. The patient insisted on the full \$300. The patient

may well lose \$270 of medical deductions and the doctor may find himself on a list for a scheduled tax examination of his own return at his office.

The moral is: Dr. F now sends receipts on all house calls. This is the ideal way to handle cash payments on all house calls, even if not the most common practice today. From a public relations view, it is a good idea to send a receipt. The receipt may well say: "Keep this receipt for tax purposes." After all, many charitable foundations and stock brokerage houses print that advice on their receipts. Why shouldn't the doctor protect his patient and himself by this simple method?

BAIT #7

Has an informer told a story about you?

Dr. G is an internist in a city of 10,000 population. Uranium is discovered nearby and the City swells to 20,000 almost overnight. The Doctor's caseload per day had been 10; with the boom his caseload jumps to 40. He is busy to the point of distraction. He places an ad in the paper for an assistant and hires the only applicant who calls. No investigation is made of her background or references. She is to be a combined housekeeper, receptionist and technician. After a month's trial, the Doctor finds his records and charts in a mess, which were bad to begin with, and had not been improved by her. He discharges her although he is unable to replace her. Each day his records continue to grow worse. The pressure of the practice is beating him to a pulp. This ex-assistant, in her hurt pride and bitterness, sends an anonymous letter to the Internal Revenue Service, stating: in her opinion, the Doctor was failing to report his total income on his tax return. Although she acted with malice and without evidence, she turned out to be right in that the Doctor had not reported his full income. But Dr. G is honest and she knows it.

Acting on this anonymous tip, the IRS makes an investigation of the Doctor's latest return. As a result, an actual underpayment of taxes is uncovered and an assessment made against the Doctor in the sum of \$10,000 additional tax due, plus 6% interest from the day last year's return was due, after going through the Doctor's hodge-podge of so-called records. But the Government has also sent him the second part of the bill for another \$5,000 as a fraud penalty computed on 50% of the first part of the bill. The Doctor feels he has done no intentional misdeed. The Government insists upon the fraud penalty because they feel that Dr. G had *wilfully intended to evade a tax*, by failing to unscramble his books when he should have known that his tax return, which he sent in, could not report his true income when his books were as bad or worse than no books at all. At best, Dr. G certainly does not show up in a favorable light.

Dr. G, being all worked up, appeals this fraud penalty to the United States Tax Court. The Doctor is losing time from his practice and footing a steep bill from his attorneys and accountants. Top it off, the local news-

paper carries the story of his tax troubles and his patients gossip about it. The Tax Court upholds the findings of fraud. Again, the Doctor still feels he is right and doggedly appeals the matter to an even higher court, the Circuit Court of Appeals. He is lucky if his blood pressure does not go up too. The Circuit Court of Appeals rules in his favor, deciding that a doctor who is busy to the point of distraction and could not obtain help to properly perform his services and maintain his records, could not be guilty of fraud. The Court cancels this bill for \$5,000 of fraud penalty but the Doctor has actually paid more in fighting the case in trying to save his conscience and his reputation.

Had the Government tried to prove negligence, which carries only a 5% to 25% penalty, they might have been able to make it stick more easily than the charge of fraud.

The moral is: Keep your books in a messy state and you give informers a field day.

BAIT #8

Has a newspaper given you publicity on your finances?

Likely to make the front page is a story of a roll

of unexplained \$100 bills found in a small box in someone's house. Can you imagine the story of Dr. H's wife who had already saved \$2,000 in cash in \$20, \$50 and \$100 bills? And putting it aside in a metal box for a rainy day? Then this Dr. H goes off on a two weeks vacation with the wife and kids. Leaving the house to be repainted. In moving the furniture about, the painters shoved a movable standing closet — and out falls the box — and the money. The painters, worried that the Doctor might accuse them of finding more, report the discovery to the police in order to protect themselves. And to make matters worse, the newspapers publish the story.

Right or wrong, cash around the house is a tax and personal liability #1. The Internal Revenue Service is particularly interested in public revelations of this nature. Dr. H's tax return is subject to review, and a lot of time lost from his practice, on the basis of this publicity given.

The moral is: Don't keep your money in cash at the home or office. Put your money in a savings account — or investment — and keep it alive — working for you — day and night and — on vacations.

(To be continued in the December issue of the Journal.)

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Across The Desk

Continued from page 327

MEDICAL CARE COST RISES, NOW NO. 2 IN PRICE INDEX

Labor Dept. consumer price index for September, 1955, reveals medical care second only to rent. Their index figures, respectively, are 128.2 and 130.5 (1947-49 period equals 100). In other words, changes for medical and dental services, and hospitalization, have risen 28.2 per cent since pre-Korea. For random comparisons, food prices have gone up 11.6 per cent, apparel 4.6, transportation 25.3 and, all consumer commodities and services combined, 14.9 per cent.

SOME FACTS ON PHYSICIANS AND THEIR ESTATES

The Hartford County (Connecticut) Medical Society recently studied 144 obituaries of local physicians and probate court cases involving their estates. While the survey, of course, wasn't too large, it revealed some interesting and startling facts, including:

One out of eight of the physicians who died between 1940 and 1953 was in debt at the time of death.

Of the 144 doctor estates studied, one out of three left net assets of less than \$10,000.

The Hartford survey disclosed only one extremely wealthy doctor out of the 144 and that \$575,915 of his estate was consumed by estate taxes and other settlement expenses.

Only one doctor in *eight survived his wife!*

The doctors aged 40 to 50 died twice as fast as the general population, and in the 60-70 bracket, the doctors' death rate was 50% higher than the insurance table.

Heart diseases and cerebral hemorrhage were the chief causes of death.

Expenses of settlement of the estates studied ranged from a minimum of 13% to as much as one third.

The age of death of the physicians when compared with life insurance mortality tables showed that there were two vulnerable age periods for medical men — 40 to 50 and 60 to 70.

One out of three physicians left no will.

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Tuberculosis Abstracts*

Issued By The National Tuberculosis Association

Tuberculosis - 1955. Is Hospital Care Necessary?

By Ralph E. Dwork, M.D., M.P.H., The Ohio State Medical Journal, May, 1955.

The rapidly changing pattern of treatment of tuberculosis, especially since the announcement of isoniazid early in 1952, has made it increasingly important to "keep up" in this field. Questions have arisen regarding the need for hospital care, the duration of such care, and the intelligent handling of antimicrobial drug therapy. For these reasons it has seemed desirable for the Ohio Department of Health to present the best informed opinion available at this time.

(1) How have drugs influenced the duration of hospital care? Drug therapy has shortened both the average duration of hospital care and duration of bed rest for patients with early active disease. It has lengthened the period of hospital care for a significantly large group of patients, who would otherwise die early, but now are kept alive as chronic cases for a long time with drug therapy.

(2) Is hospital care necessary for all active cases or will home treatment suffice for many such patients? If there are insufficient beds available, home treatment using anti-TB drugs is obviously the next best procedure. Rather dramatic early improvement is often seen in active TB treated at home with anti-TB drugs, but some such cases suffer "spread" of disease and may lose their chances for recovery.

Recently, James J. Waring, M.D., a former president of the National Tuberculosis Association, acknowledging the disadvantages of TB hospital care, such as expense, separation from family, and restrictions of hospital living, pointed out the serious deficiencies of home care in tuberculosis. Members of the family and the public are frequently exposed unnecessarily to tubercle bacilli. The patient at home seldom obtains an understanding of his disease and the attitude toward its long-term treatment which will lead him to protect his health long after active treatment has been stopped. This "education" which comes from the staff and other patients in the TB hospital is usually not accomplished when the patient is treated at home. Systematic rest at home is difficult to attain without supervision. In the hospital, rest is a prime consideration. The early weeks of drug therapy are often complicated by symptoms requiring changes in regimen, insistence on regular administration, and moral support by the staff. At home the drugs prescribed may be omitted or taken irregularly with the result that early drug resistance develops. Toxicities of drugs in use and complications may go unrecognized for long periods when the patient is at home. In the hospital such incidents are handled safely and promptly. The increased importance of surgery in tuberculosis makes it essential that the strategic moment for intervention not be missed. Recent experience indicates that many patients treated at home are not being considered for surgery at any time. The technical facilities of laboratory and X-ray often provide crucial information determining the course of therapy. Such aids are often inadequately provided in home treatment but the hospital patient usually has access to the necessary services. Altogether, it is seen that while home treatment of tuberculosis may, at times, be successful, there are many hazards associated with it.

After viewing the problem of rest and exercise, the Committee on Therapy of the American Trudeau Society said, "The Committee on Therapy points out again that, from the facts now available, there is no evidence to support a reduction in the amount of rest therapy from that of past practices except as it may be justified by an earlier attainment of an inactive status of the disease . . . The patient should be hospitalized, if at all possible, throughout the infectious stage of his disease. In addition to the benefits of hospitalization to the patient, this is sound public health practice to prevent the spread of tuberculosis . . . The total period of disability, though greatly shortened, on the average, with antimicrobial therapy, must still be estimated at a minimum of one year, even in mild cases which respond favorably to treatment."

When there were insufficient beds for the care of tuberculosis patients, there may have been some justification for individual cases remaining at home. Now that beds are available, a special obligation falls on the health departments and practicing physicians to see that "active cases" and potentially "infectious cases" are in hospital beds.

Public health officers and practicing physicians are in a strong position in insisting that every case of active tuberculosis have a period of treatment in a tuberculosis hospital. This period will be variable in length but must continue until the patient is not a hazard to his associates and until all therapeutic factors have been utilized to the patient's maximum benefit. The Ohio Department of Health recommends that all health departments and practicing physicians take a firm stand to the end that the process of tuberculosis control be accelerated to its maximum.

PREVALENCE OF TUBERCULOSIS IN LARGE CITIES

Editorial, The Journal of the American Medical Association, February 5, 1955.

Although there is considerable optimism regarding tuberculosis as a result of the introduction of new chemotherapeutic agents and the rapidly falling death rate, physicians close to the tuberculosis problem believe this may not be entirely warranted. There is good reason to believe that the prevalence (total number of cases of tuberculosis in the community) may actually be increasing.

One reason for the increasing prevalence of tuberculosis lies in the survival rate of numerous patients currently treated, as compared with the prechemotherapeutic era. Prior to 1946, most large tuberculosis institutions reported an annual death rate of about 30 per cent of the number of yearly admissions. The current rate in most of these institutions is under 10 per cent. As survivors return to community life from the sanatorium, some inevitably undergo a relapse, and infect other persons, possibly with tubercle bacilli already resistant to anti-tuberculosis drugs.

A second factor that contributes to an increase in the number of tuberculosis patients living at home can be attributed to the outpatient programs. This type of program varies considerably from city to city. In New York, treatment is administered to patients who have left sanatoriums against medical advice as well as to those who refuse to enter sanatoriums. Many of these patients have negative sputum. On the debit side, however, it is probable that many of these patients will relapse and many will refuse to undergo effective surgery. In the Chicago program, recalcitrant patients are untreated; only postsanatorium patients selected for early discharge are given outpatient treatment. The relapse rate for these selected cases has been reported as being very low.

A third factor that contributes to an increase in the number of tuberculosis patients at home is due to enthusiastic publicity on the efficacy of antituberculosis drugs. Many newly discovered tuberculosis patients are encouraged by this publicity to refuse sanatorium care and many sanatorium patients leave before treatment has been completed. Survivors who formerly would have died, patients with surgical collapse, a large number of "good chronics" who are clinically well but bacteriologically positive, and numerous recalcitrant, inadequately treated patients present a threat to effective tuberculosis control.

Effective management of increased prevalence of tuberculosis in a community requires improved supervision of patients residing at home, improved liaison between sanatoriums and outpatient clinics, and greater restriction of tuberculosis "public health menace" patients. While great strides have been made recently in tuberculosis therapy, what still remains to be accomplished should not be minimized in this most prevalent of all infectious diseases.

(The printing of Tuberculosis Abstracts is made possible by the cooperation of your local tuberculosis and health associations.)

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No. 12

A Program Of Medical Education

GEORGE W. WOOD, III, M.D., Bangor, Maine*

The Post Graduate Education Program of the Eastern Maine General Hospital has been revised during 1955 and the initial steps in its expansion have been accomplished.

During the summer months the Post Graduate Education Committee has reviewed our conference program. They have grouped several meetings on Tuesday mornings and on Thursday mornings and afternoons with the hope that more of the physicians in the vicinity will be enabled to "make a morning or afternoon of it" with us. Many will be particularly pleased with the Surgical Grand Rounds to be held on the wards at 9:00 a.m. on the first Tuesday of each month and with the Surgical Conference to be held at the same hour on the third Tuesday. Each of these programs will be followed by a presentation of interesting cases from the Medical Department.

Other additions are the combined Radiology-Pathology case discussions to be held each Wednesday at 5:00 p.m. and the combined Medical-Surgical chest meeting to be held at 9:00 a.m. on the second Tuesday of each month. As in the past, two of our Thursday afternoons will be conducted by visiting clinicians from Boston. The Penobscot County Medical Society gathers

at six-thirty on the third Tuesday of the month. The committee's schedule which completes this report records the details of our program.

For a number of years the staff has conducted several clinics in the out-patient department of the hospital. They have also been called to serve in a similar capacity by other community organizations. The various aspects of a more extensive, yet centralized, clinic facility have been investigated by a staff committee. They have recommended the expansion of our present clinic services to the indigent population of this area. This opinion has been concurred in by the Executive Committee and the Board of Trustees and with the acquisition of a well trained medical social worker the reorganization will begin. The Bangor-Brewer Tuberculosis and Health Association is generously supporting the idea. As an index of their interest they have authorized the purchase of equipment to measure pulmonary function.

There has been the gradual recognition by the staffs of several non-university teaching hospitals that a well coordinated and complete training program for interns and residents would, under ideal conditions, require a full-time medical education director. We have discussed the complexities of such a position, its application to our locale and following these deliberations have sought a physician of proper professional stature. We feel very

*Member, Post Graduate Education Committee

fortunate and proud to announce that Lawrence L. Weed, M.D., will assume the position of Director of Medical Education, Eastern Maine General Hospital on July 1, 1956.

Dr. Weed comes to us from Yale University School of Medicine where he has been Assistant Professor of Medicine and Assistant Professor of Pharmacology since 1954. In addition to his teaching responsibilities at Yale he has continued his basic research in nucleic acid chemistry which he had initiated at the University of Pennsylvania in 1949. While in the Army he was an instructor in the Army Medical Service Graduate School

and a member of its Department of Bacteriology where he applied the nucleic acid studies to the metabolism of bacteria and viruses. He is a graduate of the College of Physicians and Surgeons, Columbia University and has had intern and residency training in the University Hospitals of Cleveland, Bellevue Hospital, N. Y. C. and Johns Hopkins Hospital, Baltimore, Md. We extend a warm welcome to Dr. Weed and his family.

The reorganization of the clinics and conferences and the appointment of Dr. Weed are important steps in the development of a sound educational program in a modern regional hospital.

MONDAY

- 9:00-10:00 a.m. ECG Interpretations, ECG Department
 9:00-11:00 a.m. Medical Follow-Up Clinic, Out-Patient Clinic Rooms. Every Monday
 9:00-11:00 a.m. Arthritic Clinic, Physical Therapy Room. Last Monday of every month, in place of Medical Follow-Up Clinic
 1:00- 2:00 p.m. JOURNAL CLUB, Doctors' Library. First Monday

TUESDAY

- 9:00-10:00 a.m. ECG Interpretations, ECG Department
 9:00-10:30 a.m. *Surgical Service, Grand Rounds. First Tuesday
 9:00-10:30 a.m. *Medical-Surgical Chest Conference, Staff Conference Room. Second Tuesday
 9:00-10:30 a.m. *Surgical Service Conference, Staff Conference Room. Third Tuesday
 9:00-11:30 a.m. Prenatal Clinic, Out-Patient Clinic Rooms. Every Tuesday
 10:30-12 Noon MONTHLY MEDICAL MEETING, Staff Conference Room. Departmental—First Tuesday
 10:30-12 Noon *Medical Conference, Grand Rounds. Second and Fourth Tuesday
 10:30-12 Noon *MEDICAL CLINICAL-PATHOLOGICAL CONFERENCE, Staff Conference Room. Third Tuesday
 7:00 p.m. MONTHLY SURGICAL MEETING, Staff Conference Room. First Tuesday
 6:30-10:00 p.m. Penobscot County Medical Society, Location to be announced. Third Tuesday

WEDNESDAY

- 9:00-10:00 a.m. ECG Interpretations, ECG Department
 9:00-10:00 a.m. Neurological Service, Grand Rounds

- 9:00-12 Noon Speech Clinic (State), Out-Patient Clinic Rooms. Third Wednesday
 1:30- 4:00 p.m. Mental Health Clinic (State), Out-Patient Clinic Rooms. First Wednesday
 2:00- 4:00 p.m. Anesthesia Conference, Staff Conference Room
 5:00- 6:00 p.m. *X-RAY—PATHOLOGY CONFERENCE, Staff Conference Room. Every Wednesday

THURSDAY

- 9:00-10:00 a.m. ECG Interpretations, ECG Department
 9:00-10:30 a.m. Pediatric Service, Grand Rounds
 9:00-12 Noon Tumor Clinic, Out-Patient Clinic Rooms. Every Thursday
 1:30- 3:30 p.m. Orthopedic Clinic (State), Physical Therapy Rooms. Fourth Thursday, every other month
 4:00- 6:00 p.m. *SURGICAL CONFERENCE, Staff Conference Room. First Thursday. Visiting Surgeon
 4:00- 6:00 p.m. *MEDICAL CONFERENCE, Staff Conference Room. Third Thursday. Visiting Clinician
 4:30- 5:30 p.m. *SURGICAL-PATHOLOGICAL CONFERENCE, Staff Conference Room. Fourth Thursday

FRIDAY

- 9:00-10:00 a.m. ECG Interpretations, ECG Department
 9:00-11:00 a.m. Cardiac Clinic (State), Out-Patient Clinic Rooms. Fourth Friday
 1:30- 3:00 p.m. Pediatric Clinic (State), Out-Patient Clinic Rooms. Fourth Friday

SATURDAY

- 9:00-10:00 a.m. ECG Interpretations, ECG Department
 8:30-11:30 a.m. Pediatric Clinic, Out-Patient Clinic Rooms. Every Saturday

NOTE: Programs marked with (*) are open to all interested physicians. Attendance of the resident staff is required at all programs which are capitalized.

Steroid Therapy In Rheumatoid Arthritis*

ROBERT O. KELLOGG, M.D.

Steroid therapy of rheumatoid arthritis has been employed beneficially on a widespread clinical scale for the past four years. This discussion will concern itself with a group of patients with rheumatoid arthritis seen and treated in the arthritis clinic at the Eastern Maine General Hospital. It is felt by most that in carefully selected cases steroids are useful in the treatment of rheumatoid arthritis. Most of our steroid treated patients have received cortisone orally, although it is our belief that ACTH, or hydrocortone have about the same desirable effects to offer the patient. The undesirable effects of the latter two agents vary only slightly from those of cortisone.

In accord with the usually accepted indications we have used cortisone where the disease is active, and following a progressive, unrelenting course in which patients have not responded to, or responded poorly to, such standard conventional therapeutic measures as rest, salicylates and physiotherapy. We have used cortisone as an aide to rehabilitation in the case of enabling a person to resume employment, and to a certain extent, self-sufficiency.

Rheumatoid arthritis is an incurable disease and characterized by spontaneous remissions and exacerbations for the remainder of the patient's life. None of the drugs employed in therapy, including steroids, gold or butazolidin, alter the natural course of the disease. Gold may induce a remission, but at the end of 5 or 10 years it is doubtful whether a single or multiple courses of gold actually alter the natural course of the disease. Analogous to certain other incurable diseases, such as essential hypertension, maintenance drug therapy over a period of years is for most patients an impracticality.

It is known that cortisone will not alter or arrest the pathological process of rheumatoid arthritis. In a recent report by Bunim and McEwen, (1) comment was made on extension or progression of subchondral bone destruction in serial X-rays taken on a random series of 20 patients with rheumatoid arthritis. Fourteen of these patients had subchondral bone destruction, and eight of these 14 showed progression while on cortisone. In the 6 remaining cases, new areas of destruction occurred during cortisone therapy. In 5 of these 6 cases there was subjective and objective clinical and laboratory signs of improvement. The above mentioned points are

stressed because it is felt that steroids, if employed, should be only one feature of the total therapy. We have employed steroids in a small series of 16 patients out of a total of 81 patients admitted to the clinic over a 4 year period. This represents 20% of our clinic arthritics who have received steroids. The steroid treated patients received the same counsel about rest being their best friend, and fatigue, infection, and emotional upset their natural enemies, salicylates, exercises, paraffin dips, wet and dry heat, and orthopedic help just as do the non-steroid treated patients.

Of our 16 cases that have been, or are being, treated, 9 were females and 7 were males. The youngest was a female, 25 years of age, who has had rheumatoid arthritis for 12 years, and the oldest, a male, 62 years of age. The average age of all patients was 45.7 years. Duration of arthritis prior to steroid therapy was from 3 months in a 44 year old female, to that of a 49 year old woman who had her arthritis for 20 years. The average duration of arthritis in the 16 cases was 8.3 years (Chart I).

Severity of arthritis prior to therapy was classified broadly into mild, moderate, and severe cases. Classification of a chronic disease is admittedly a difficult and somewhat unscientific task. In general, the mild cases were those who had had their arthritis a short time, and who were still gainfully employed or self-sufficient. They had lost little or no time from work because of their illness. The moderately severe cases were those who were but partially invalided. They were able to work part time but were becoming dependent on their families. They usually had flexion deformities of fingers, elbows or knees, and their characteristic deformities left no doubt as to the correct diagnosis, as is so often the case in mild rheumatoid arthritis. It is our experience that not infrequently the diagnosis of mild rheumatoid arthritis cannot be made with confidence during early months of the illness, sometimes until characteristic structural changes occur.

The patients classified as severe were for the most part, totally invalided. These pathetic cases are deformed with multiple, usually symmetrical, flexion contractures, swollen joints, muscle atrophy, and subluxation. Many are confined to a wheelchair or bed, and are completely dependent on their families. They are not only an economic loss, but an economic drain. These are frequently the patients who have had their disease for many years. Early in their course, they seek medical help, obtain little relief, get discouraged, and become hermits from the medical profession. With the advent of new forms

*From the Medical Service (Arthritis Clinic) of the Eastern Maine General Hospital

Presented before the Bangor Medical Club, January 18, 1955.

CHART I

Case # Pt	Sex	Age	Years of Arthritis	Severity	Average Maintenance Dose	Duration	Results	Undesirable Effects
1. M.W.	F	49	20 yrs.	Severe	75 mg	3 yrs.	Improved	Leg ulcer in edema
2. L.W.	F	59	15 yrs.	Severe	50	1 mo.	Improved	none
3. A.S.	F	41	5 yrs.	Moderate	62.5	Intermittent 2 yrs.	Improved	none
4. E.O.	F	44	3 mos.	Moderate	75	1 mo.	Improved	none
5. F.M.	M	51	3 yrs.	Severe	50	2 yrs.	Unimproved	
6. H.M.	M		6 mos.	Moderate	100	3 yrs.	Improved	Moon face Hypertension Obesity
7. E.M.	M	62	12 yrs.	Moderate	ACTH	1 mo.	Improved	none
8. G.I.	M	60	7 mos.	Mild	Variable	5 mos.	Unimproved	none
9. W.G.	M	36	1 yr.	Moderate	100	3 mos.	Unimproved	none
10. F.H.	F	45	5 yrs.	Severe	100	Intermittent 18 mos.	Improved	Moon face
11. M.H.	F	25	12 yrs.	Severe	Variable	3 yrs.	Improved	Excessive menstrual bleeding, Moon face Edema
12. E.G.	F	38	6 mos.	Mild	200 mg B.I.W.	2 mos.	Improved	none
13. E.F.	F	55	10 yrs.	Severe	ACTH	1 mo.	Improved	none
14. C.F.	M	41	18 yrs.	Mild	100 mg	2 wks.	Improved	none
15. U.F.	M	51	20 yrs.	Moderate	75	1 yr.	Improved	Probable peptic ulcer
16. S.C.	F	28	1 yr.	Mild	75	6 mos.	Improved	none

of therapy such as steroids, some of them are brought to the attention of a physician.

It should be mentioned here that duration of arthritis does not always connote increasing severity. Mild cases may exacerbate and remit for years in a mild fashion. One of our cases classified as mild, had his illness for 18 years. On the other hand a mild case may be rapidly progressive and pursue a relentless, fulminating course to marked severity in less than a year.

One of our patients is a young family man who had prolonged, costly hospitalization while being observed for fever of unknown origin. During this period he had one exploratory operation for suspected renal sep-

sis, and later jaundice with alteration of liver function tests. After about six months of illness he developed rheumatoid arthritis with typical joint disease, and it was only in retrospect that the severe preceding constitutional illness was the prodrome of his rheumatoid arthritis. This case taught us a good deal about the protean manifestations of an illness, which, like other collagen diseases, or diseases of mesenchyme, has the potential of involving not only primarily synovial tissue, but almost any structure in the body. Of our 16 cases treated with steroids, 4 were classified as mild, 6 classified as moderate, and 6 as severe.

The average age of the mild patients was 41 years,

average age of moderate cases was 47 years, and the average age of severe patients was similarly 47 years. These figures mean little in so small a series except to say that degree of severity bears little relation to age at the time that we initiated steroid therapy.

It was mentioned earlier that of the steroids available we have used oral cortisone in most of our cases. Hydrocortone is being used more frequently, and, like cortisone, has the desirable feature of being an oral preparation. Only two of our patients received ACTH, and that was during the early months after steroids became commercially available. The anti-rheumatic effect of ACTH is about that of cortisone, but, being a parenteral medication, it is somewhat impractical to prescribe in a clinic practice.

Various dosage schedules of cortisone lend themselves to effective use. The average daily maintenance dose is a difficult figure to reckon, because patients on a short term therapy, or intermittent therapy, generally have frequent changes in the dosage schedule. Such a patient may have his dose changed at each monthly clinic visit over a 3 or 4 months' period. Long term steroid therapy patients, however, usually arrive at a uniform dose which is consistent with the maximum therapeutic effect. In general, the aim of steroid therapy is to deliver the least amount of drug that will provide the maximum degree of improvement. When cortisone is prescribed, our desire has been to relieve symptoms such as pain, soreness, lameness, and stiffness, and to decrease swelling, make muscles and joints more limber and supple, and to improve range of motion of joints. We try to do this without administering enough drug to produce a full-blown picture of hyper-adrenal corticism with many of the features of Cushing's disease. Producing the latter may be necessary at times in treating such other collagen diseases as lupus erythematosus or periarteritis where the severity of the disease warrants such large dosages in order to secure a remission. Such doses, however, are seldom required in treating rheumatoid arthritis. Most of our patients were maintained on daily doses of 50, 75, or 100 mgs. a day. The approximate average was 77 mgs. per day. One patient received 200 mgs. on each of 2 days a week. Occasionally a patient will tell us they are benefited by one tablet, or 25 mgs. a day. In our opinion this has no therapeutic effect as it is of the order of replacement therapy as it is used in Addison's disease. All this will do is inhibit their own adrenal glands and probably has no anti-rheumatic effect.

The duration of steroid therapy has varied a great deal in our patients. Three patients have been treated for 3 years and the shortest therapy of any individual patient has been for two weeks. The average length of steroid therapy for all patients was 13 months. Two of the 3 year treated patients were classified as severe, and one of them as moderately severe. All three of them were considered to have been helped by cortisone, and it is our opinion that in 2 of them it was of

definite aide in vocational rehabilitation. One of these is a young bread winner who gave up his job as driver of a milk delivery truck, and has in the past year or so converted his hobby of caning chairs and other similar handicraft into his vocation. The former vocation of being exposed to extremes in climate with sudden temperature changes, was held to be particularly undesirable for a young man with a future in doubt as far as his arthritis was concerned.

One of the other 3 year treated patients is a 52 year old housewife with a 22 year old history of arthritis. This patient had marked rheumatoid changes in her hands, knees, feet and ankles. She had demonstrable fluid in numerous joints including all of her metacarpophalangeal joints, the wrists, and all proximal interphalangeal joints. It was felt that the fluid imposed further limitation of motion of the affected joints, and that this represented a physical sign of activity of her arthritis. During her long course on cortisone, the fluid in these joints became considerably less in amount, although has not completely absorbed.

The third three year treated case is a 25 year old female who had a 12 year history of arthritis. Her most severely affected joints were the hands, elbows and hips. Flexion, extension, abduction, and adduction of the hips was so limited as to seriously interfere with walking. The orthopedic consultant was opposed to hip arthroplasty because of the severely affected joints in the upper extremities which would have prohibited the use of crutches or canes in the post-operative period, and hence prohibit adequate rehabilitation after such a procedure. One of this patient's chief complaints was hip pain. X-rays showed extensive bilateral hip joint involvement with loss of cartilage and almost complete fusion of the left femur to the acetabulum. Cortisone was credited with being of help in this case, along with rest, salicylates, and prescribed exercises in decreasing pain and stiffness, and enabling her to walk more comfortably. This patient's cortisone was stopped 18 months ago. In spite of continuing with the rest of the program that she was on during cortisone therapy, she has become stiffer, and her shuffling steps are, if anything, a little shorter, due to relentless progression of hip arthritic activity.

RESULTS

The results obtained in these 16 cases of rheumatoid arthritis with steroids incorporated in their therapeutic program are classified simply as improved or unimproved. No attempt has been made to quantitate improvement by numerical grading on a 1 to 4 plus basis. In general, in order to rate an improved result the patient had to demonstrate distinct objective, as well as subjective, improvement. Objective changes noted were decrease of swollen joints, decreased warmth, and diminished joint effusions. Similarly, increased range of joint motion by physical examination or by actual goniometric measurement had to be noted.

The maximum degree of objective improvement usually occurred within the first month of therapy. Little improvement was noted on subsequent monthly clinic visits that had not already occurred on the initial visit one month after the start of steroid therapy. In mild cases, what amounts to almost complete remission may occur. In severe cases with marked anatomical changes, some joint swelling, effusion and pain may persist even with high doses producing Cushing's disease-like toxic effects. Extraarticular and constitutional manifestations of rheumatoid arthritis such as fever, subcutaneous nodules, anemia, and accelerated sedimentation rates in general tend to improve. However, irreversible joint changes such as contractures with fibrous or bony ankylosis, subluxations, and joints in hyperextension all thumb their noses at steroids and can only be altered, if it is indicated, by appropriate exercises and orthopedic procedures.

Subjective changes as reported by patients included diminished joint pain and soreness, increased mobility, and ability to perform simple acts which previously had been difficult or impossible to attain. Improvement in range of motion of upper extremity limited joint motion would permit patients to feed themselves or comb their hair, or permit them to require no assistance in dressing themselves. Other reported improvements included greater facility in getting in and out of bed and ability to change position in bed with greater ease, thus insuring better rest and sleep. This is felt to be a strong point in favor of steroids because of the well known therapeutic effect of rest and sleep in the patient with active rheumatoid arthritis. Another subjective improvement was greater ease in the arthritic's ability to transport himself from one location to another, as from his home to his place of business. It was reported to be easier to get in and out of an automobile. Thirteen of our cases were classified as improved while taking steroids, and 3 cases were unimproved.

It is the experience of most clinicians that arthritis flares up shortly after cortisone has been stopped. Hench (2) reported in 1950 that about 25% of his patients had a remission at the termination of cortisone therapy. Others report only an occasional patient with lasting benefit after stopping cortisone. It is felt that these patients have entered a spontaneous remission, not induced by steroids, but rather carried through an exacerbation in a more comfortable and tolerable fashion, until nature provides them with a remission. In an effort to avoid even mild degrees of adrenal insufficiency, the cortisone should be tapered off slowly. It has been our practice to lower, or stop, the drug stepwise no more abruptly than in decrements of 12.5 mgs. every three or four days. Lessening the dosage very gradually seems to be associated with the less severe resurgence of the arthritis and permits the atrophic adrenal cortex to return gradually to its normal physiological state.

In discussing the results of steroid therapy it should

be said that our experience with intraarticular injection of hydrocortone has been limited to a few cases. We believe this is a useful adjunct in properly selected individuals. One of our few patients who seemed to derive lasting benefits after a short course of cortisone in 1950 developed bilateral knee joint pain, swelling, warmth and effusion in November, 1952. Other joints at that time were asymptomatic. Weight bearing was painful, and walking unaided was most uncomfortable. In December she received weekly knee paracenteses with instillation of 25 mgs. of hydrocortone. Within 12 hours of the first injection there was considerable improvement with less pain, lameness, decreased warmth, and greater facility in walking. She received similar treatments once in January and again in March, 1953. It should be emphasized that hydrocortone was used in conjunction with other therapy. During this time she was restricted in her physical activities and was not permitted to walk without crutches. For the following year she used posterior leg splints at night in an attempt to prevent any worsening of mild flexion contractures of the knees. She has also been performing quadriceps exercises. In spite of these measures, when seen in the Clinic last month, she had a 20 degree flexion contracture of the right knee with considerable quadriceps atrophy. She still uses a cane for guarded weight bearing. This patient's sedimentation rate has been uniformly elevated during the 4½ years she has been under observation. It is not within the scope of this paper for me to philosophize about a local medication such as hydrocortone. Suffice it to say that it should not be used except as an adjunct to these other above mentioned measures. It seems reprehensible to relieve symptoms and permit normal weight bearing activities, particularly in a knee joint that is the site of active rheumatoid arthritis. Such a method can only perpetuate inflammation and incur further damage.

UNDESIRABLE EFFECTS OF STEROIDS

Extreme caution was rightly urged on any physician employing steroids when they first became available. Several serious complications developed in patients receiving these drugs, which, it was felt, contraindicated their use in patients with such varied disorders as peptic ulcer, hypertension, diabetes, tuberculosis, and certain neuro-psychiatric disorders. As time passed, and with the changing goal in therapy of arthritics, from one of loading the patient with toxic doses, to one of accepting limited therapeutic success with smaller doses, the problem of serious complications of therapy has lessened considerably. We fortunately have not seen in the arthritis clinic such catastrophes which have been described, such as ulcer, spread of tuberculosis, osteoporosis with vertebral fractures, or myocardial infarction developed as a result of therapy with steroids.

Five of our 16 patients, or 38%, did have some undesirable effect of steroid therapy. All of those 5

patients received the drug for a year or longer. We noted moderate leg edema in 2 patients, one of whom developed a leg ulcer which was resistant to healing over a long time. No glycosuria was detected. The leg ulcer is listed as a cortisone effect because it developed in an area of edema which was not present prior to cortisone. Hypertension developed in a male patient while on cortisone. This has been mild and asymptomatic. The highest pressure recorded for this patient while on cortisone for three years has been 150/100 mm. Hg. This same patient also had a moon face, and gained 50 pounds of weight during the first year of cortisone. His weight gain may have been spontaneous, or might be attributed to the appetite improving property of this drug. Another complication we encountered was probable peptic ulcer. This occurred in a 51 year old railroad employee. This patient had a 20 year history of arthritis which had progressed to only moderate severity. He was receiving a maintenance dose of 100 mgs. of cortisone daily when he developed postprandial and nocturnal epigastric discomfort, which was relieved by an ulcer regime. This patient did not have gastrointestinal X-rays. His gastrointestinal symptoms recurred several months later, and for this and other reasons, his cortisone was discontinued. Moon facies was observed in 3 of our 16 patients.

SUMMARY AND CONCLUSIONS

(1) Steroid therapy of 16 patients treated in the arthritis clinic during the past 4½ years have been presented. (2) Patients were selected for this form of therapy because of active disease, pursuing a progressive, unrelenting course, and who have responded poorly to standard therapeutic measures. (3) The average duration of arthritis was 8.3 years at the time cortisone was started. (4) The approximate average daily maintenance dose employed has been 77 mgs. per day. The average length of steroid therapy on these patients was 13 months. (5) Thirteen of the 16 patients were improved as a result of adding steroids to their therapeutic program. Emphasis has been made of the importance of cortisone as an aide to vocational rehabilitation. (6) Undesirable effects of steroid therapy have been briefly discussed.

BIBLIOGRAPHY

1. Bunim, J. J.: Cortisone Therapy in Rheumatoid Arthritis: A four year appraisal, *Bulletin in Rheumatic Diseases*; V: 73 (Sept.) 1954.
2. Hench, P. S., Slocumb, C. H., Palley, H. F., and Kendall, E. C.: Effect of Cortisone and ACTH on Rheumatic Diseases; *J.A.M.A.* 144: 1327 (Dec.) 1950.

Diverticulitis Of The Colon With Perforation During Cortisone And ACTH Therapy *

THOMAS H. PALMER, JR., M.D.** , PETER J. H. MASON, M.D.*** ,
and ASA C. ADAMS, M.D.****

Acute fulminating diverticulitis of the colon with perforation and generalized peritonitis is a comparatively rare and catastrophic complication. More commonly acute diverticulitis is complicated by localized pericolic abscess which may subsequently rupture into adjacent viscera, reach the body surface, or secondarily rupture into the peritoneal cavity. In a series of 140 patients with surgically treated diverticulitis studied by Hayden

(1) in 1940, only three patients had acute perforation of the colon. Morton (2) reported three acute perforations in 196 patients with diverticulitis, and McLanahan (3) found that there were only 12 patients with perforation due to diverticulitis in a 12 year period at the Johns Hopkins Hospital and two affiliated hospitals. It has been established that cortisone and ACTH suppress inflammatory reaction, so that normal body defense mechanisms may be impaired. (4, 5) These hormones inhibit the formation of granulation tissue, fibroblasts, ground substance, and vascularization in experimental animals and man. A pyogenic infection that would ordinarily be expected to localize might fail to do so through the anti-inflammatory effects of the hormones. Quiescent tuberculosis may become activated under cortisone and ACTH therapy, so that their use is contraindicated in the presence of this disease. Similarly

*From the Surgical Service of the Eastern Maine General Hospital, Bangor, Maine, and the New England Center Hospital, Boston, Massachusetts.
**Assistant attending surgeon, Eastern Maine General Hospital. Formerly resident surgeon, New England Center Hospital.
***Attending surgeon, Millinocket Community Hospital. Formerly resident surgeon, New England Center Hospital.
****Attending Surgeon, Eastern Maine General Hospital.

patients with pneumonia have been adversely affected by cortisone and ACTH. (6) The use of these hormones is contraindicated also in the presence of peptic ulcer. In addition to producing an increase in hydrochloric acid, pepsin and trypsin secretion, their anti-inflammatory action increases the danger of hemorrhage or perforation. (7) Cortisone and ACTH have been implicated in perforation of the colon during treatment of ulcerative colitis. Tulin and associates (6) have reported that 3 of 17 patients with ulcerative colitis treated by ACTH developed perforation. They felt that the rationale for the use of ACTH in patients with acute fulminating ulcerative colitis is questionable, and the risk of such complications as perforation and peritonitis is grave. In a series of patients with ulcerative colitis studied by Ripstein, (8) six patients developed perforation of the colon through an area of ulceration. Three of these patients had been receiving cortisone therapy.

It is the purpose of this report to call attention to the possibility that therapy with cortisone and ACTH may be a factor contributing to perforation of the colon and generalized peritonitis in some patients with diverticulitis. During the past year the authors have had experience with two such patients, both of whom were being treated with cortisone or ACTH for arthritis.

Case Reports:

Case 1. N.E.C.H. #92302—F. H., a 56 year old white male entered the New England Center Hospital on November 19, 1954, because of progressively severe migratory polyarthritis of 6 months' duration. Physical and laboratory findings were those of active rheumatoid arthritis. Because of a vague history of occasional poorly localized abdominal discomfort, x-ray studies of the upper gastro-intestinal tract were carried out to eliminate the possibility of peptic ulcer prior to institution of steroid therapy. No abnormality of the upper gastro-intestinal tract was found, but a follow-up film showed barium-filled diverticula in the left side of the colon. Therapy with 60 units of ACTH every 8 hours intramuscularly was instituted on November 19, 1954. There was prompt improvement of the joint symptoms. On November 22, 1954, the patient developed sudden left sided abdominal pain which rapidly became generalized. There was generalized abdominal rigidity, rebound tenderness and absence of peristalsis. Rectal examination disclosed no tenderness or masses. Films of the abdomen disclosed no free air under the diaphragm. The white blood count was 9,700. It was felt that the patient had a perforated viscus, most likely perforation of peptic ulcer which had developed under ACTH therapy or had not been detected by x-ray studies. The possibility of perforated diverticulum of the colon was considered to be less likely. At operation on November 22, 1954,

there was generalized peritonitis and perforation of a sigmoid colon diverticulum with no evidence of attempts by the body to wall off the inflammatory process. The perforation was closed, drains were placed in the pelvis and a transverse colon colostomy was carried out. The post-operative course was complicated by development of an extensive wound infection and subsequent incisional hernia. Post-operative x-ray examination of the colon and rectum disclosed diverticulosis of the descending and sigmoid colon. The patient was discharged on December 23, 1954. He was readmitted to the hospital on January 23, 1955, and on February 4, 1955, two and one-half months after perforation, left colectomy with end to end anastomosis of transverse colon and rectosigmoid, closure of colostomy, and repair of incisional hernia were carried out. There were no complications after operation and the patient was discharged from the hospital on February 26, 1955.

Case 2. E.M.G.H. #24588—C. B., a 78 year old white female entered the Eastern Maine General Hospital on September 16, 1955, because of abdominal pain of 13 hours' duration. The pain developed suddenly in the left side of the lower abdomen and rapidly became generalized. There had been no episodes of abdominal pain in the past. During the past 3 years the patient had severe hypertrophic arthritis of the spine and extremities and had taken 50-100 mgm. of cortisone by mouth daily for the past two years. On examination the patient was an elderly, obese, acutely ill female. The temperature was 100°F., the pulse 92. The blood pressure was 170 mm. of mercury systolic, 90 mm. diastolic. There were deformities of the spine and extremities characteristic of hypertrophic arthritis. The abdomen was somewhat distended, with generalized rigidity and rebound tenderness. Peristalsis was absent. Rectal and pelvic examination disclosed no tenderness or masses. The white blood count was 23,800 with a shift to the left. Films of the abdomen showed a small amount of free air under the right side of the diaphragm. There were scattered gas-filled loops of small bowel and a considerable amount of air and fluid in the stomach and duodenum. The pre-operative diagnosis was perforated diverticulum of the sigmoid colon. This diagnosis was confirmed at operation, 3 hours after admission to the hospital. The perforation was closed, drains were placed in the pelvis, and transverse colon colostomy was carried out. The patient did fairly well for two days after operation but on the third day the pulse rose to 120, the blood pressure to 200/100, and the temperature to 101.4°F. She became increasingly restless, irrational, comatose and expired. Permission for autopsy was not obtained.

DISCUSSION

The relationship between perforation of the colon and therapy with cortisone and ACTH in these two patients may be only one of coincidence. Diverticulosis of the colon has been estimated to occur in from 5% to 10% of the normal population over the age of 45, (9) and diverticulitis is a rather commonly encountered disease. ACTH and cortisone have been utilized in the treatment of a variety of diseases, and it is reasonable to assume that many of the patients so treated have diverticulosis. However, the possibility must be considered that some patients who develop diverticulitis during the course of therapy with ACTH and cortisone may be adversely affected by these hormones. Acute diverticulitis does ordinarily become localized by the normal body defense mechanisms, and acute perforation with generalized peritonitis is a comparatively rare complication. There is much clinical and experimental evidence that cortisone and ACTH suppress inflammatory reaction upon which the localizing process in large measure depends. Therefore it seems reasonable to suspect that these hormones may have been a contributing factor in the fulminating course developed by the two patients reported herein. The authors have encountered no similar reports in a review of the literature. It may be that additional cases will come to light in the future.

The possibility of diverticulitis with perforation should be kept in mind in patients over the age of 45 who are being treated with cortisone and ACTH. As in Case 1, the clinical picture may be difficult to differentiate from perforated peptic ulcer. The location of pain at its onset, a previous history of diverticulitis, or known diverticulosis may be helpful. In addition, the finding, as in Case 2, of free air beneath the diaphragm together with a large amount of fluid and gas within the stomach and duodenum tends to indicate a perforation of the lower gastro-intestinal tract. The importance of early correct diagnosis and proper location of the incision may be reflected in the mortality rate. Wound infection and dehiscence in the presence of fecal peritonitis is common and an incision in the right side of the upper abdomen with the expected diagnosis of perforated peptic ulcer would have to be inordinately enlarged, or closed and a separate incision made, in order to close a perforation in the sigmoid colon. The pelvis should be drained and a proximal

transverse colon colostomy should be carried out as in both of the presented patients. Some patients with perforated peptic ulcer and generalized peritonitis fail to demonstrate the usual clinical picture of abdominal rigidity, rebound tenderness and severe pain when they are receiving ACTH or cortisone therapy. (10) This did not occur in the patients reported herein, and those reported by Tulin et al, all of whom had the classical picture of peritonitis. However, the possible development of generalized peritonitis without the expected symptoms and physical findings should be borne in mind.

SUMMARY AND CONCLUSIONS:

1. Cortisone and ACTH therapy may be a factor contributing to perforation of the colon and generalized peritonitis in some patients with diverticulitis.
2. Two patients are reported who developed perforation of a colon diverticulum during treatment of arthritis with cortisone and ACTH.
3. The possibility of diverticulitis with perforation should be kept in mind in patients over the age of 45 who are being treated with cortisone and ACTH.

REFERENCES:

1. Hayden, E. Parker: Surgical Problems in Diverticulitis; N.E.J.M., 222, 340, 1940.
2. Morton, J. L.: Diverticulitis of the Colon; Ann. Surg. 124, 725, 1946.
3. McLanahan, S. and Gilmore, W. E.: Spontaneous Perforation of the Colon; Ann. Surg. 139, 833, 1954.
4. Goodman, L. S. and Gilman, A.: The Pharmacological Basis of Therapeutics; 2nd Ed. p. 1662, MacMillan Co., New York, 1955.
5. Ragan, C., Howes, E. L., Ploty, C. H., Meyer, K., Blunt, J. W. and Lattes, R.: The Effect of ACTH and Cortisone on Connective Tissue; Bull. N. Y. Acad. Med. 26, 251, 1950.
6. Tulin, M., Kern, F., and Almy, T. P.: Perforation of Bowel During Treatment of Ulcerative Colitis with Corticotropin; J.A.M.A. 150, 559, 1952.
7. Galante, M., Rukes, M., Forsham, P. H., and Bell, H. G.: The Use of Corticotropin, Cortisone and Hydrocortisone in General Surgery; Surg. Clin. N. A., 1201, October 1954.
8. Ripstein, C. B.: Perforation of the Colon in Ulcerative Colitis; Ann. Surg., 140, 872, 1954.
9. Maingot, R.: Abdominal Operations; 3rd Ed., p. 1234, Appleton-Century-Crofts, 1955.
10. Habib, D. V., Hare, C. C., and Glazer, G. H.: Perforated Duodenal Ulcer Associated with Pituitary Adrenocorticotrophic Hormone (ACTH) Therapy; J.A.M.A., 144, 996, 1950.

Laboratory Methods Of Neurologic Diagnosis *

CARL W. IRWIN, M.D.

In this era of technical procedures, laboratory identification of disease has assumed increasing importance. With this importance has come an increasing tendency to neglect the more important history and physical examination, and to suggest a battery of tests in the hope of identifying the disease process. Actually, the laboratory procedures are of genuine value only in confirming a clinical impression. Rarely, of course, an unsuspected diagnosis may be "picked up." This paper is designed to delineate the scope, and the limitations, of laboratory procedures in the field of neurology and neurologic surgery.

Many diseases produce secondary neurologic symptoms: diabetes, the various anemias, hypertensive cardiovascular disease, arthritis, and others. In these cases, adequate general medical evaluation is essential. It is not for the neurologist to dictate what laboratory procedures are indicated in these cases. Obviously, x-rays, blood chemistry determinations, blood cytological studies, metabolic tests, cardiograms, urine investigation, and many other procedures may be indicated. This paper deals essentially with primary neurologic problems.

Ordinary x-rays are probably the most common — and least valuable — laboratory procedures. X-rays of the chest may show infectious or neoplastic processes which suggest, but do not define, neurologic symptoms. Ordinary x-rays of the skull may give a definitive answer, but usually are helpful only in indicating further diagnostic procedures. Some intracranial neoplasms may present diagnostic features on these films. Bony tumors, or meningiomas causing localized bony changes, are relatively easily identified. However, many meningiomas result in no appreciable changes in the osseous structures. Tumors about the sella turcica may be identified by changes in the sellar contour or by calcification within the tumor mass. Acoustic neuromas may cause erosion of the internal auditory meatus. If the pineal is calcified, displacement of this structure may give radiographic evidence of a lateralized mass lesion. Skull x-rays immediately following trauma are usually of only medico-legal significance. The exceptions are those demonstrating fracture across a vascular channel or gross depression of bone fragments. Neither of these are necessarily indications for radical treatment, however.

Ordinary x-rays of the spine have limited value. Congenital defects of bony structure may be identified, and suggest the need of further investigation. Certain

infections, such as tuberculosis of the spine, can be identified. Metastatic neoplasms — not primary neurologic tumors — are demonstrable. Traumatic changes in the spinal cord are usually quite out of proportion to bony abnormalities. Intervertebral disc abnormalities may be suggested on ordinary films, but require more elaborate studies for final diagnosis.

Examination of the cerebrospinal fluid is probably the most valuable of the technically-easy laboratory procedures. It is beyond the scope of this article to list all of the various neurologic diseases which result in changes in this fluid. It is most important that all required studies be carried out, using fluid obtained at the first lumbar puncture. The initial pressure should be recorded, using a manometer. The Queckenstedt test is rarely of any real value. A cell count should be done, with a careful differential count if more than a few cells are present. If infection is suspected, or if the cell count is elevated, there should be determinations of spinal fluid sugar and chlorides, as well as culture of the fluid. The total protein determination is important. Specific tests for syphilis should be done, as well as the colloidal gold test.

Among the more elaborate tests, electroencephalography (EEG) seems somewhat over-rated, except from the academic standpoint. It should have the greatest use in epilepsy, but rarely gives any indication of the basic cause of this symptom. An abnormal electroencephalogram simply suggests the need for definitive studies; a normal tracing may lead to a disastrous sense of security concerning a case which should be receiving active therapy.

Among the definitive diagnostic measures, visualization of the air-filled subarachnoid spaces usually offers the greatest amount of information. The simplest technique is that of the air encephalogram, involving the replacement of cerebrospinal fluid with air or other gas introduced through a lumbar puncture needle. This procedure carries the risk of both anesthesia and the procedure itself. A somewhat safer technique is ventriculography, with the introduction of the gas into the ventricles of the brain through two small openings in the skull. In either case, satisfactory x-ray pictures may be made of the brain, with the necessary contrast being furnished by the radiolucent ventricular system. Most mass lesions of the brain may be demonstrated in this manner, with excellent localization of the lesion for possible surgery. In most cases, neither procedure should be undertaken unless it is practicable to proceed with any required surgical operation at once.

In suspected vascular lesions, angiography is the pro-

*From the Surgical Service (Neurosurgical Division) of the Eastern Maine General Hospital, Bangor, Maine.

cedure of choice. A radio-opaque substance is injected into the common or internal carotid artery while x-rays of the skull are being obtained. Actual vascular lesions may be fully demonstrated by this technique, and mass lesions are often identifiable by distortion of normal blood vessels or the presence of abnormal vessels.

Frequently, both air encephalography and cerebral angiography are done for the same patient, in order to provide complete visualization of a lesion. Recently, radioactive materials have been used for even more precise diagnosis; this technique is not used generally at the present time.

Diagnostic surgical exploration is rarely carried out as a primary diagnostic procedure. However, biopsy may be indicated to determine the precise nature of a lesion and appropriate definitive therapy. An exception to this is exploration for suspected subdural or extradural hematoma. While this lesion may be dem-

onstrated reasonably well by cerebral angiography, operation is just as safe and has the added advantage of being therapeutic as well as diagnostic.

Intraspinal lesions almost always require myelography, using a contrast medium in order to visualize the spinal canal on fluoroscopy. This technique gives excellent localization and definition of the lesion, preparatory to the required surgery.

SUMMARY

The various laboratory procedures utilized in diagnosis of neurologic abnormalities have been described briefly, with comment on application and limitation. Adequate preliminary investigation should be carried out prior to the use of any of these procedures. This study should include a complete history, an adequate physical examination, and a decision regarding working diagnosis. On the basis of this, suitable tests may be chosen.

Atypical Pernicious Anemia

A Case Report

KARL E. MARKIN, M.D. *

The anemic patient with glossitis, paresthesias, and a lemon yellow skin color is usually easily diagnosed as pernicious anemia. However, when these symptoms do not appear, and there are other complaints as presenting

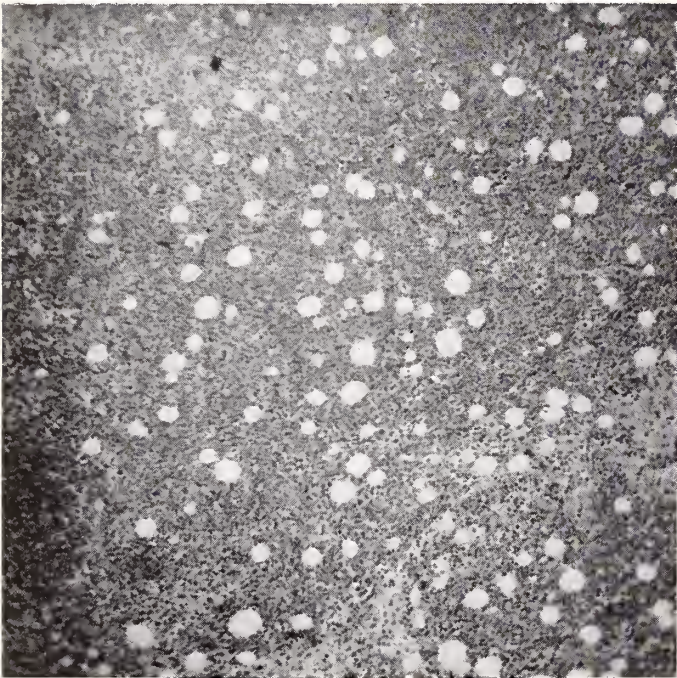


FIG. 1. Bone marrow in March 1953. The marrow is very hyperplastic, but is predominantly granulopoietic.

symptoms, the underlying disease may easily be missed. Such is the case with the patient presented here.

This patient is a 75 year old white male farmer, first admitted to the Eastern Maine General Hospital on March 22, 1953, with the chief complaint of crampy lower abdominal pain and nausea and vomiting of six to seven months' duration. The patient also noted anorexia and a five to ten pound weight loss during this period. He denied any blood loss from any body orifice and had no neurological complaints. The remainder of the history was unremarkable. On physical examination, vital signs were normal. The patient was a well-developed, elderly white male with moderately acute abdominal distress. The skin showed no icterus. There were no remarkable physical findings except for a moderately distended and slightly tender abdomen, and questionable hepatomegaly. His temperature, which was 105°F. (rectal) on admission, dropped to normal in three days. Hemoglobin on admission was 6.8 grams and the mean corpuscular hemoglobin was 36; the white blood count

was 3,400, with a differential of 69 polys, 11 bands, 20 lymphocytes, and 1 metarubricyte. It was thought at this time that the patient probably had a partial obstruction of the colon due to neoplasm, but the barium enema showed only diverticulosis. The patient received a total of eight units of whole blood in two weeks and the hemoglobin rose gradually to 10.5 grams on discharge. However, during this time the white count dropped as low as 1,600 with a differential of 34 polys, 31 bands, 33 lymphocytes, and 2 eosinophils. The platelet count was 190,000. Blood smear repeatedly showed anisocytosis and macrocytosis, but the red blood cells were not noted to be hyperchromic. A bone marrow four days after admission showed a markedly hyperplastic granulocytic marrow. (Fig. 1). The differential counts on this and the subsequent marrows are shown in Table I. The white blood count on discharge was 3,450 with a differential of 55 polys, 6 bands, 32 lymphocytes, and 4 eosinophils. The patient was discharged with the diagnosis of probable chronic granulocytic leukemia.

The patient again entered the Eastern Maine General Hospital on January 26, 1955, for transfusion. Since his previous discharge he had apparently received an occasional transfusion—the total number was unknown. Since his first admission the patient had apparently had considerable mental deterioration, as he was confused and agitated and unable to speak rationally. On physical

TABLE I

Differential Counts on the Bone Marrow on Successive Admissions	First			
	First	Second	Third	Normal (Approximate)
Myeloblast	4.8	—	0.4	2.0
Progranulocyte	6.4	0.4	0.4	5.0
Myelocyte	20.8	13.6	10.8	12.0
Metamyelocyte, N.	16.8	5.2	5.6	5.0
Metamyelocyte, E.	0.4	0.8	0.4	2.5
Metamyelocyte, B.	0.4	0.0	0.0	0.3
Band, N.	18.8	23.6	25.2	15.0
Band, E.	1.6	1.6	0.4	1.0
Band, B.	0.8	0.0	0.0	0.0
Segm., N.	8.4	12.8	23.6	20.0
Segm., E.	0.8	0.0	0.4	1.0
Lymphocyte	4.0	4.0	3.2	10.0
Monoblast	0.8	0.0	0.0	0.0
Plasmacyte	0.4	1.2	0.8	0.4
Rubriblast	(PA) 0.0 (0.0)	0.0 (1.2)	0.0 (0.0)	0.0 (0.0)
Prorubricyte	(PA) 2.0 (0.0)	1.2 (7.2)	0.4 (0.0)	0.5 (0.0)
Rubricyte	(PA) 7.2 (0.0)	2.8 (1.2)	4.0 (0.0)	3.0 (0.0)
Metarubricyte	(PA) 5.6 (0.0)	15.2 (4.8)	24.0 (0.0)	18.0 (0.0)

*Rotating Intern, Eastern Maine General Hospital, Bangor, Maine.

examination, the vital signs were normal. The patient was observed to be an elderly, wasted, cachectic white male. The skin was pale, but not icteric. The tongue was smooth but of normal color. On this admission the

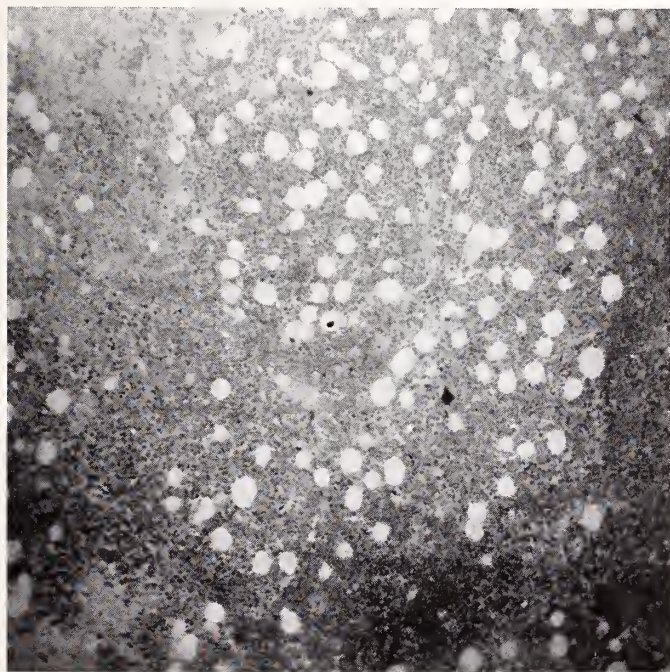


FIG. 2. Bone marrow in January 1955. The marrow is very hyperplastic, but is predominantly erythropoietic.

hemoglobin was 4.8 grams and hematocrit 13 per cent. White count was 1,650 with 77 polys, 2 bands, 21 lymphocytes. The platelet count was 140,000. There was considerable macrocytosis on the peripheral blood smear. The diagnosis of pernicious anemia was made after gastric achlorhydria was found. The patient was thought to be in critical condition so that it was deemed necessary to give 2000 cc's of whole blood. A reticulocyte count of 0.2 per cent was obtained immediately after the transfusion. Unfortunately, a simultaneous RBC count, Hct., and Hgb. were not obtained until after the transfusion. These were 2,200,000, 24 per cent, and 7.5 grams respectively, giving an MCH of 34, MCV of 109, and MCHC of 32. The patient was then placed on 30 micrograms of Vitamin B₁₂ each day, after which the reticulocyte count rose to 5.9 per cent in seven days and then fell to 2-3 per cent over the next seven days. The hemoglobin of 7.5 and hematocrit of 24 per cent after transfusion and at the start of B₁₂ therapy slowly rose to 11.5 grams and 36 per cent respectively over a 2½ week course of B₁₂ therapy. The Coomb's test and G.I. series and chest x-rays on this admission were all negative. Serum proteins, urinalysis, and NPN were normal. Total bilirubin was 0.9 mg. per cent with a direct of 0.5 mg. per cent and indirect of 0.4 mg. per cent. Bone marrow taken at the onset of B₁₂ therapy showed megaloblastic marrow consistent with the diagnosis of pernicious anemia, (See Table I and Figure 2). However, in view of the poor reticulocyte response to B₁₂ there was some doubt expressed

regarding the diagnosis of pernicious anemia, although it was advised that he receive B₁₂ injections at 3-4 week intervals from his local physician after discharge.

The patient was admitted to the Eastern Maine General Hospital for the third time on September 7, 1955, with the chief complaint of a "sticky discharge" in his throat which he had difficulty in swallowing and expectorating. He had received intermittent B₁₂ injections of 60 micrograms at 3-4 week intervals since his last discharge. The patient at this time was very confused and highly irrational and unreliable. On physical examination the patient was an apathetic elderly white male who did not appear physically ill. There were no remarkable physical findings except for a grade II soft blowing apical systolic murmur and slight hepatomegaly. The hemoglobin was 14.5 grams and the hematocrit was 46 per cent. White count was 6,300 with a normal differential. Bone marrow examination was normal, as shown in Table I and Figure 3.

This case is presented to show some of the difficulties which may be encountered in the differential diagnosis of severe anemias. A single examination of the bone marrow may be misleading. The granulocytic hyperplasia of the marrow on this patient's first admission may have been the result of an infectious process which could also have been responsible for his fever. There are factors which may interfere with the laboratory evidence of a diagnostic reticulocyte response to B₁₂ therapy in pernicious anemia. The fact that this patient received multiple whole blood transfusions prior to the initiation of B₁₂ therapy probably accounts for the extraordinary delay and slight degree of the reticulocyte response.

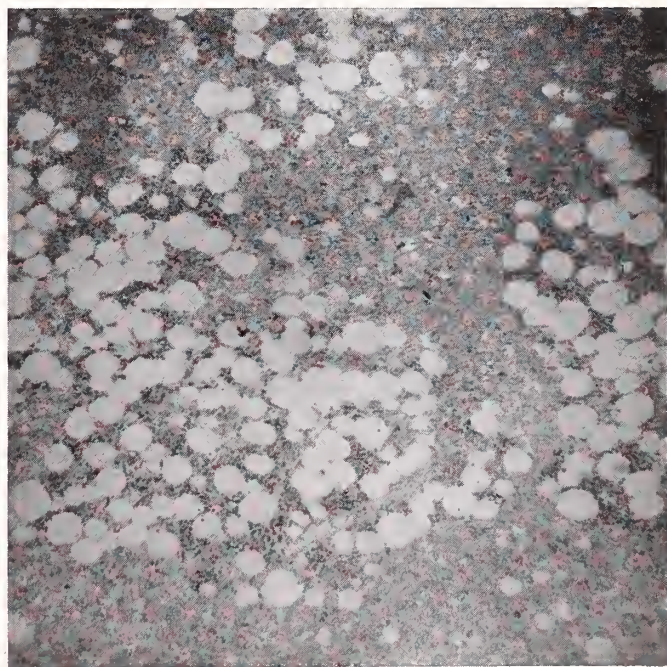


FIG. 3. Bone marrow in September 1955 following therapy with B₁₂. The marrow is now normoplastic with a rather marked increase in the clear areas of fatty marrow. The pale cells at the lower margin are mature erythrocytes. (All three photographs are of the same magnification, approximately 100X).

Clinico-Pathological Exercise *

Edited by NELSON P. BLACKBURN, M.D.

Clinical Abstract:

A 61 year old white female office clerk entered the hospital complaining of weakness and dyspnea which had been progressively developing over a two-year period. More recently she had noted some chest pain on exertion and also a chronic pounding in her ears which was synchronous with her pulse. She denied any chills or fever but noted that she bruised easily, and during the past six months noted an irregular petechial rash over her forearms. Approximately one day prior to entry she had one acute vertiginous seizure which lasted 24 hours.

Physical examination on entry revealed a well developed, well nourished, cooperative female in no acute distress, showing extreme pallor of mucous membranes. There were small ecchymoses over both forearms and numerous petechiae over the upper trunk. A right axillary node was palpated. The lungs were clear to percussion and auscultation. The heart was normal in size and shape and had a normal sinus rhythm. There was a grade II precordial systolic murmur. The spleen was palpated 8 cm. below the left costal margin. The liver was palpated 9 cm. below the right costal margin and in the midclavicular line. There was a minimal degree of pretibial edema.

Laboratory Findings:

Laboratory examination showed a hemoglobin of 7.8 grams, a red blood cell count of 2.83 million with a color index of .94. The hematocrit was 25%. The total white blood cell count was 19,000 showing 10 neutrophils, 33 bands, 14 metamyelocytes, 3 myelocytes, 6 progranulocytes, 29 lymphocytes and 3 prolymphocytes. The smear showed an increased number of platelets, moderate anisocytosis, microcytosis, occasional ovalocytes, a large amount of polychromatophilic, and occasional sickled cells. Attempt at bone marrow aspiration was reported as being extremely difficult, very little material being returned. There was a decrease in all series of cells with a relative increase in the erythroid series. (WBC:RBC ratio 1:1.7). The differential count was myeloblasts 3, progranulocytes 0.4, myelocytes 2.2, metamyelocytes 1.4, bands 4.8, segmented polys 2.2, eosinophilic metamyelocytes 0.2, lymphocytes 0.2, reticulum cells 0.2, rubriblasts 8.0, prorubricytes 33.0, rubricytes 35.0, metarubricytes 9.0, megakaryocytes 0.4. The urine showed the specific gravity to be 1.007. The sediment showed occasional squamous cells and 0-3

wbc/hpf. The reaction was acid. Albumin, sugar and acetone were not present. Blood chemistries: Uric acid 4.1; blood sugar 88, urea nitrogen 19, total proteins 6.2 with 3.0 grams of globulin, total cholesterol 237, cholesterol esters 69% of total, bilirubin 0.4, cephalin flocculation was negative, thymol turbidity 0.5 units; clotting time 8 minutes, bleeding time 2 minutes. The Kahn and Hinton tests were negative. An E.K.G. was reported as probably being within normal limits. X-ray of the chest showed an increase in the transverse diameter of the heart and some arteriosclerotic changes of the aorta. A plane film of the abdomen showed marked splenic enlargement. A skull film showed no intracranial abnormalities. A splenic aspiration showed an unusually high number of blast cells, thought probably to be lymphoblasts. A bone marrow biopsy showed generalized fibrosis of the marrow.

Clinical Course:

The patient was discharged somewhat improved and it was suggested that she be treated on the outside with a minimum number of transfusions compatible with a feeling of well being.

The next ten months the patient was followed by her local physician and in spite of five units of whole blood at intervals, the hemoglobin slowly dropped to 5.3 grams. The patient again noted increasing dyspnea, palpitation, weakness and some edema.

The second hospital admission was for re-evaluation. The physical examination then was essentially as before, the positive findings being ecchymoses of the forearms, the liver 13 cms. below the right costal margin, the spleen 11 cms. below the left costal margin. There was two plus pitting edema of the extremities. The temperature was 100°, blood pressure 150/88, pulse 84, respirations 25.

Laboratory tests showed an essentially negative urine. The red blood cell count was 1.77 million, hemoglobin 4.5 grams, hematocrit 14.5%, reticulocytes 1.1%, platelets 425,000, total white blood count 10,600 with 26% neutrophils, 7 bands, and 67 lymphocytes. The total bilirubin was 0.5, the prothrombin time 17 seconds, (over 30%).

Treatment consisted of five units of whole blood and aqueous ACTH, 40 units per day. The course in the hospital was uneventful except for a daily temperature elevation to 100-101°. The patient was discharged on the third day following admission with a hemoglobin of 9 grams and feeling symptomatically better.

The third and final hospital admission two months

*Case presented at Eastern Maine General Hospital, Bangor, Maine. Edited by Nelson P. Blackburn, M.D.

later was again because of severe dyspnea. During the two months interim she was treated with 40-60 units of ACTH gel daily. She developed signs of fluid retention and was placed on a low salt diet and potassium chloride. One week before admission a blood sugar was 305 mg. Regular insulin, 20-30 units daily, were administered. The patient became more dyspneic and pale and three days prior to admission noted an increase of temperature to 101.4°.

The physical examination revealed a critically ill, markedly dyspneic, pale female, who appeared to be extremely anxious. The blood pressure was 160/80 mm.Hg., pulse 130, respirations were 40 and the temperature was 101.4°. The heart rate was regular. The tongue was dry. The lungs were clear to percussion and auscultation. The liver was 5 fingerbreadths below the right costal margin. The spleen was 2 fingerbreadths below the left costal margin. There was no definite ascites. The extremities showed minimal edema. The blood sugar was 380 mg. per 100 cc., CO₂ was 19 meq., hemoglobin was 4 grams, hematocrit 13%. She was treated with two units of whole blood, oxygen, insulin and crysticillin. On the morning of the day following admission the patient appeared alert and symptomatically better. In the afternoon, however, she became quite apprehensive and the respirations increased rather rapidly from 35 to 60, and she shortly became unresponsive. The temperature at that time was 103°. The respirations became more rapid and shallow, and the pulse very weak. She shortly lapsed into coma and was pronounced dead on the evening of the first day following admission.

DIFFERENTIAL DIAGNOSIS:

Dr. Lawrence M. Cutler: This is a fascinating problem, and one which brings up a tremendous number of possibilities. This concerns a 61 year old female who died some three years following the onset of her present illness. I should like to approach the answer by starting off at the beginning and picking out some of the important relevant symptoms and then trying to put them together. The weakness and dyspnea of which this 61 year old female complained over a three year period could fit in with almost any of the chronic constitutional diseases. The chills and fever which she denied, the bruising easily which she noted, the irregular petechial rash over her forearms and the vertiginous seizure which she had a day previous to admission are all important signs and symptoms. At this point one might think in terms of thrombopenic purpura and, knowing nothing more than what is stated in the first paragraph, might think in terms of either a chronic thrombopenic purpura or a chronic non-thrombopenic purpura. As we develop the problem further, perhaps these symptoms will become more important. The acute vertiginous seizure which lasted for 24 hours previous to entry may indicate that this patient had bleed-

ing into the brain with the resulting seizure just before admission.

The physical examination revealed an anemia. She was well developed and well nourished. There was no evidence of any wasting disease. The small ecchymoses and numerous petechiae confirm what has already been stated. A right axillary node was palpated. I cannot find any evidence in the protocol that this was biopsied. At this point one might consider possibilities which might cause lymphadenopathy such as leukemia, lymphoma, or metastatic carcinoma. In a female of 61 years, an enlarged axillary node might result from a carcinoma of the breast. However, no further statement is made concerning this node. This might be a red herring, although I suspect it probably plays an important part in the overall picture. The fact that the lungs were reported to be clear minimizes the possibility of pertinent gross pathology in the chest. The heart murmur itself is not described any further than that it is a precordial systolic murmur and grade II. It could indicate one of several things. In a 61 year old female I'd question that it is a functional murmur and I would consider this as an organic murmur. Although the typical murmur is not described, the possibility of calcific aortic disease should be mentioned. The presence of hepatosplenomegaly brings to mind other possibilities among which should be mentioned myeloid metaplasia with extramedullary hematopoiesis. Other causes could be one of the leukemias or any of the lymphomas. Generalized carcinomatosis could be the etiological mechanism for myeloid metaplasia. I think, too, that one has to consider the possibility of subacute bacterial endocarditis. She denied chills and fever but, I think that a severe constitutional infection could easily account for all the findings. I would like to emphasize, however, that, as I see the general picture, the extramedullary hematopoiesis is the effect and the causative factor is some agent to be decided on. It could be produced by generalized amyloid disease which could be either primary or secondary. There is a definite anemia which I believe is probably normochromic. She had a leukocytosis with a marked shift to the left. The platelets were increased. The peripheral blood smear itself showed evidence of active erythropoiesis. The fact that it was difficult to get into the bone marrow is a relative finding which might or might not be important. It may have been due simply to a dull needle. It could have been due to a choice of a bad spot. I'm not sure that one can place too much emphasis on the difficult bone marrow aspiration. What bone marrow fluid was obtained demonstrated, according to the laboratory, a decrease in the granulocytic cells with a relative increase in the erythroid series. This finding, in general, fits in quite nicely with the possibility of extramedullary hematopoiesis and this blood picture can be typical. There is no good explanation why some of these space-occupying processes, like metastatic carcinoma, which infiltrate the bone marrow cause a decrease of the white

blood cell series yet allow a certain amount of erythropoiesis to go on. Mechanically, there is no replacement of the entire bone marrow and there is enough bone marrow left to function. There are some who think that there is some biochemical stimulus that affects the erythroid series. Extramedullary hematopoiesis with myeloid metaplasia probably was a symptom of the general fundamental disease process which went on in this 61 year old patient. Metastatic carcinoma could have been a possible underlying cause. I have in mind the possibility of a carcinoma of the breast, with generalized metastases, which might produce this general hematological picture. The fact that she had ecchymoses and petechiae is important although it was reported that the platelets were normal in the blood smear and an adequate number of platelets were noted in the marrow smear. The hemorrhagic manifestations could possibly be explained on the basis of some defect in the development of the megakaryocyte or some defect in platelet formation which caused the platelets to be non-functioning or poorly functioning. The urine was not significant. Marble bone disease, Albright's disease, multiple myeloma and in a younger person, Gaucher's disease, and Niemann-Pick's disease might all be considered. A splenic aspiration was reported to show a high number of blast cells, thought probably to be lymphoblasts. I don't know enough about splenic aspiration to discuss this intelligently. I suspect that in case of extramedullary hematopoiesis a splenic aspiration might show more evidence of reticulo-endothelial cell production and would include all marrow elements. The bone marrow biopsy showed generalized fibrosis of the marrow which substantiates my assumption that we might be dealing with extramedullary hematopoiesis. If this is a representative sample of marrow, the marrow simply has been knocked out by some pathological process either known or unknown. Aplastic anemia might be considered although it is not possible to define the mechanism too well. Another possibility might be a burned-out polycythemia rubra vera, which happens occasionally, with the reticulo-endothelial system taking over the blood cell production.

The patient was discharged somewhat improved and it was suggested that she be treated on the outside with a minimum number of transfusions compatible with the feeling of well being. I would like to mention at this point the possibility of hemochromatosis because of numerous transfusions, although I don't think it is likely here. In spite of the blood replacement, her hemoglobin continued to drop and the patient became progressively worse.

At the time of her second admission her liver and spleen had increased considerably in size. Compared to her first admission each had about doubled in size. At this admission she was febrile and the laboratory reported a definite increase in the severity of the disease with some differences in the differential count in the

peripheral blood smear. Whatever disease process was going on was becoming progressively worse. She was given more blood and this time she was placed on ACTH. She continued to run an uneventful course in the hospital except for febrile episodes. The fever again brings to mind the possibility of subacute bacterial endocarditis as the etiological factor, but no blood cultures are reported. I don't find enough evidence to say that the febrile course is on the basis of a subacute bacterial endocarditis. Just why she was running a fever I'm not sure. It is possible for people with various types of lymphomatous disease, to run a fever and it could be accounted for on that basis.

Her last hospital admission was two months later because of severe dyspnea. She had been receiving ACTH in large doses and she demonstrated signs of toxicity from the steroid therapy. I suspect that her elevation in blood sugar was on the basis of the ACTH and it's possible that she may have had latent diabetes which was aggravated by ACTH. She was still febrile. The hyperglycemia again raises the question of hemochromatosis but I don't find in the protocol enough evidence to support it. The physical examination revealed a very desperately ill patient who was nearly in extremis. The liver and spleen had varied somewhat in size and she showed quite definite evidences of the toxic effects of steroid therapy superimposed on the primary clinical problem and which probably contributed to her final exitus one day later.

I believe this patient had (1) Extramedullary hematopoiesis due to a metastatic carcinoma, possible from the breast; (2) Arteriosclerotic heart disease with aortic calcific stenosis; and (3) Steroid toxicity.

DISCUSSION

Dr. Wilbur Manter: Would the fact that the patient's spleen decreased in size subsequent to treatment with ACTH give a clue to the diagnosis?

Dr. Robert Kellogg: I should expect that enlargement due to lymphoma or leukemia would respond but I do not know about extramedullary hematopoiesis. I should like to express a difference of opinion regarding the diagnosis. If any more information were available about hemotoxic agents that the patient may have been exposed to years ago or at the time of onset of her illness, one could postulate a benign myelophthisic anemia not due to metastatic malignancy. This case is consistent with a hemotoxic agent with permanently destroyed bone marrow and this picture of enlarged liver and spleen.

Dr. Cutler: I thought about that. I should have mentioned it. You are quite right. It is one of the possibilities. I discounted it in my thinking because I felt we were dealing with an individual whose occupation was that of an office clerk so that it wasn't likely that there was a possibility of exposure to industrial poisoning. There was nothing in the protocol to in-

dicate that she had taken any kind of toxic drug. I think it's a possibility.

Dr. Blackburn: As you saw this patient during her illness, Dr. Wood, would you comment please?

Dr. George Wood: Repeated physicals had not demonstrated any abnormal breast masses and there was no significant peripheral adenopathy. Though there was no laboratory evidence, by the methods available, of accelerated hemolysis as a cause of the anemia, she was given steroids because of this possibility. At the time of her death I felt the ACTH had been of no hematologic benefit and its effect on carbohydrate and electrolyte fluid balance had probably hastened her demise. She was considered to have agnogenic myeloid metaplasia, "iatrogenic diabetes mellitus" and cardiac decompensation.

PATHOLOGIC FINDINGS:

At autopsy the body was that of a somewhat obese, elderly female with definite hirsutism of the face and a male type distribution of pubic hair. Gross examination of the organs showed marked pulmonary edema and mild hydrothorax. The spleen was enlarged five to six times and the liver enlarged approximately two times. There was mild generalized adenopathy, more notable in the anterior mediastinum. The bone marrow which is usually dark greyish-red was light pink. The adrenals showed some apparent thickening of the cortex and a yellow cortical nodule, in one, measuring 0.6 cm. in diameter.

Microscopically, there was generalized fibrosis of the bone marrow and active hematopoiesis of spleen, liver and lymph nodes. The adrenals showed mild cortical hyperplasia and the nodule was a small cortical adenoma.

We were unable to demonstrate any malignant tumor, but there was, in almost all organs including bone marrow (Fig. 1), microscopic tubercles, some having caseation necrosis, others with fibrosis and giant cells. Acid fast bacilli were demonstrated without difficulty in some of these.

Various terms such as agnogenic myeloid metaplasia, myelophthisic anemia, leukoerythroblastosis, non-leukemic myelosis and others have been used to designate this syndrome and its variations.

The host of etiologic factors causing bone marrow failure with hepato-splenomegaly and extramedullary hematopoiesis fall into a few categories. Metastatic tumor, primary involvement of the bone marrow by a neoplastic-like process (myeloma, lipodystrophies) and myelotoxic agents, such as chemicals or drugs, have all been shown to be a cause. Caseating tuberculosis has also been shown to be the apparent cause in many cases. (1) The myelofibrosis in these patients has been explained by altered response of the host to the acid fast organism with atypical connective tissue proliferation in the bone marrow. (2)

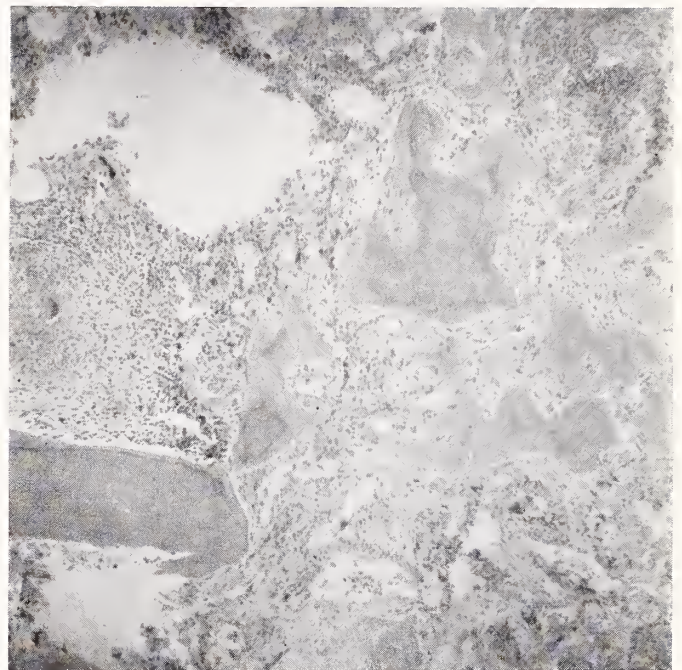


FIG. 1. Section of bone marrow obtained at autopsy. At the mid left margin is a well developed tubercle. Marked fibrosis is demonstrable between the bony spicules in other parts of the marrow. (100X)

It would seem most likely that this was the case here. We, however, cannot rule out the possibility that the tuberculosis was incidental and terminally re-activated by ACTH therapy—our case being "agnogenic".

Clinical Diagnoses:

1. Agnogenic myeloid metaplasia.
2. "Iatrogenic" diabetes mellitus.
3. Cardiac decompensation.

Dr. Cutler's Diagnoses:

1. Extramedullary hematopoiesis due to metastatic carcinoma, probably breast.
2. Arteriosclerotic coronary heart disease with aortic calcific stenosis.
3. Steroid toxicity.

Anatomical Diagnoses:

1. Pulmonary edema, hydrothorax.
2. Fibrosis of bone marrow.
3. Extramedullary hematopoiesis of spleen, liver and lymph nodes.
4. Miliary tuberculosis, caseating.
5. Adrenal cortical hyperplasia.
6. Adrenal cortical adenoma.

REFERENCES:

1. Wintrobe, Clinical Hematology, 3rd Ed., Lea & Febiger, 1951.
2. Crail, Ault and Nadler, "Myelofibrosis Associated with Tuberculosis", Blood, 3:1426, 1948.

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Are You Tax Bait?

RALPH R. BENSON

Attorney at Law, Los Angeles, California

Continued from November Issue

BAIT #9

What vicious rumors are making the rounds?

Dr. I suddenly started going to the Bank every day for the past 5 weeks. He went to the safe deposit box section. Each time he signed a slip calling for his signature, the date and the box number. The bank clerk carefully filed each slip and then preceded the Doctor into the vault, inserted the Doctor's key and the bank key in the outer door of the box. The Doctor then took the box alone into a small booth. After the door closed behind him and as he heard the lock clicked, the Doctor opened the box and took out the papers he faithfully kept as executor of the estate of his deceased friend, a fellow Doctor. There was no cash in the box. The estate was small but required all of the attention of every estate. The valuable papers — the deeds — the insurance policies — the written proof of loss — The Doctor took his responsibility to his friend's widow and children seriously and served as executor without fee, waiving any fee under state law. In those 5 weeks the Doctor did sacrifice some of his energy in handling the details of the estate and working late hours. The lights burned later than usual in his office. The trips to the bank — the light burning late when other offices had closed — caused an idle tongue to wag that the Doctor had taken on illegal surgery. This scandalous charge of abortions and hiding "hot cash" reached the ears of a tax collector who called on the Doctor and received a quick explanation from the Doctor who felt he had not been kindly rewarded at all for his deeds by the irresponsible backyard gossip.

The moral is: There is no insurance policy written which could have protected the Doctor from the common breed of viper. Perhaps the Doctor should have left the complimentary but dubious honor of his being his friend's executor to the professional talents of attorneys and bankers.

BAIT #10

Is the wife in the divorce court telling all?

Dr. J is being sued for divorce. His wife is asking \$1,000 a month support. A process server appears at his office and hands him a subpoena which reads:

"THE PEOPLE OF THE STATE SEND GREETINGS . . . We command You, that all singular business and excuses laid aside, you attend a session of Court . . . , and that you bring with you then

and there . . . all books, records, journals and ledgers . . . as well as Federal and State Income Tax Returns . . . all for the past 5 years . . . and for failure to so attend, you will be deemed guilty of contempt of court"

At the hearing, the wife's attorney calls for all the documents under subpoena and introduces each one into evidence, Exhibits 1 to 25. All of these documents are now part of the court file — an open public record — and snapped up by the newspapers. His wife takes the stand and testifies that the income tax returns are fraudulent, that Dr. J keeps a double set of books, and that the exhibits show only part of his income. The Judge orders the Doctor to pay for a complete investigation of his books by an outside accountant. Three months later, the accountant says the books are O.K. The statement of the wife was untrue and malicious.

During the time that this accountant was pouring over the books, a Special Agent from the Internal Revenue Service might have been sitting by his side.

The moral is: Before a wife's wild charges can be aired and before an easily issued subpoena goes off on a wild hunting expedition, the doctor and his lawyer should sit down with his wife and her lawyer, to reach a fair and reasonable agreement for a full and quiet accounting. By avoiding a contested court hearing, Dr. J would thereby preclude any possibility of adverse publicity of what is nobody's business but the Doctor's and his wife's.

BAIT #11

Has a Federal or State Agency become aroused about you?

Dr. K, on the night of April 15th, at 5 minutes to 12, was too concerned in getting his Federal and State Tax Returns in the mail to worry about anything else. This was the beginning of his troubles with both the State and Federal tax men. He stood there in line at the downtown post office with the two returns in his hands, anxious to drop them in the mail chute. He had just finished a feverish two hours working on his Federal return and State return and giving too little time to either. In all that rush he did not realize that both these returns are closely related — as close as Siamese twins joined at the midline of the adjusted gross income. He was tired, dog-tired, as he fought his way back finally, empty-handed and relieved, ten

minutes after 12, through the traffic still headed towards the post office. He was happy, however, because he asked for a \$500 refund on his Federal return.

Two months later the Federal tax people sent a pre-refund audit notice and later called him in to examine his records. They found more errors outside the return — the gross receipts should have been \$2,000 higher. The adjusted gross income was therefore higher. The Doctor was disallowed the \$500 refund and had to pay \$200 more plus interest, which he paid. He then felt that the episode was ended when he sent the money order for the additional tax due and interest by return mail.

Six months after that, because the Doctor did not report the \$2,000 additional income to the State, the other side of the Siamese twin came back on the scene when the Doctor received a letter from the State Income Tax Office. The Doctor did not have to visit their office. But he did pay the State the additional tax due them of \$55.00. This additional tax was based on the information supplied by the Treasury Department to the State Tax authority.

The moral is: Dr. K learned dramatically that there was cooperation between Federal and State agencies, ready to take over when the taxpayer does not know or forgets to coordinate both sides of the tax collection — National and State.

BAIT #12

Will a large amount of cash in your safe deposit box create suspicion after your death?

Dr. L, a country G.P., born 1884, Cornell University Medical College 1907, died 1955, age 70, of a pulmonary embolism as the result of a fractured hip. He was a dedicated man. His life was uneventful. Every day meant at least 2 or 3 late house calls in addition to a heavy office practice. He married at 68, in 1953. He left no Will. It never occurred to him that the \$40,000 in his safe deposit box would cause any one any income tax problems. In fact, in his modesty, he had never explained to his wife that he had systematically saved \$500 to \$800 a year in cash for the past 38 years, had cashed in World War I Liberty Bonds in 1931 and had received a \$15,000 inheritance in cash in 1950. When he died, the Bank notified the widow of the safe deposit box. She was shocked. She did not know it existed. She was in her 50's when she married the Doctor; she was inexperienced in financial matters. A week later the box was opened in the presence of the State Inheritance Tax Collector and the money counted. The Federal Government is likely to tie up the box until the money is explained. The money is an unnecessary and suspicious mystery. When the helpless widow can somehow explain to the Federal Government that the money is not unreported income and no tax due, the money will be released to her.

The moral is: It is standard procedure for the State to check all safe deposit boxes on the owner's death.

The Federal Income Tax People stand by. Had the Doctor taken the simple precaution of consulting an attorney after he got married and had prepared a Will showing the source of the money savings and bequeathing this property to his wife, there would have been no investigation and no problem.

BAIT #13

Do you pay your bills in cash?

Do you think anything could ever shock a Cadillac salesman? Well, just try paying off the purchase of a new Cadillac in cash. Dr. M thought he had just made a good deal. He had not quite reached 35 and was about to become the "proud owner" of their newest model. Of course, it was not all in cash — just \$2,000 in \$100 bills, the balance of \$3,600 of the purchase price was his trade-in, a car only a year old. The salesman recounted the money, piling it neatly on his glasstop desk and with a nervous smile gave the cash receipt and the keys to the excited and happy Dr. M and his wife.

In the course of time, the salesman forgot about the whole deal. But Dr. M vividly remembered this purchase for more reasons than he later cared to remember. At Income Tax Season — "open" season for the unwary — Dr. M simply took 100% business and professional depreciation of the new car. This was correct because the car was not used for personal reasons. But he took the straight line method, figuring 4 years of life for the new car, and divided the total price of \$5,600 by 4. He was wrong. An accountant would take into consideration the trade-in on the old car by picking up from last year the depreciated value \$3,600 divided by 4 equals 900 and the unused depreciation, \$2,700, added to the \$2,000 cash balance, for a total of \$4,700 before dividing by the straight 4. What had thrown Dr. M off was the sales gimmick of giving him a \$3,600 trade-in allowance on the new car, the exact amount he had originally paid for the old car.

The tax return was processed. When the new car showed up it was compared with the depreciation of last year. The tax people thought the old car was overlooked either by being sold and unaccounted for or that he was still using it for business or personal reasons, and should be explained. The Doctor was called in and as a simple routine affair was asked to bring in his receipts and checks on payment of the new car. When the Doctor explained he paid in cash and had no check, he now had a nervous smile on his face reminiscent of the salesman at the car agency office. True, paying bills in cash would not be revealed on the face of the tax return, but once the Government's attention is attracted even by a small bait on the return, then when the cash transactions are uncovered, the Government has a newer and better bait to be intrigued with for a more discerning investigation.

The moral is: If you pay by cash, be prepared for the awkward looks and the nervous smiles. As the Major said to the Lieutenant in the Medical Corps:

"Do it through channels." Cash transactions are not routine. Always deposit every cash receipt in a business or professional checking account and all payments can be made from there.

BAIT #14

Are you buying property?

Dr. N, 31, in his first year of practice, purchased a \$50,000 home. The escrow called for \$25,000 cash down and a \$25,000 mortgage. The County Assessor, using the 50% value of the real estate as a yardstick, placed the \$25,000 value as assessment for county real property taxes.

This new home was a far cry from the fox holes on the Anzio Beachhead as a medical corpsman under mortar fire and exploding hand grenades. With victory in Europe came medical school under the G. I. Bill. He dreamed of a small town practice. Finally, at 31, he was already established in a small city, had a new home, and had married. He donated one afternoon a week to a Spastic Children's Foundation and even gave a donation of \$1,000 to its fund. He was well liked by the community and the home was a symbol of his inner well being.

One night he sat down to do his tax return. His return was fairly simple inasmuch as it was his first year in practice. He decided to itemize his deductions on page 3. He took \$1,000 charitable deduction. He also took a deduction for the taxes and mortgage interest on the house. His return was absolutely accurate. But his return was pulled. The Government was in a fog as to the low mortgage interest compared to the high real estate taxes. The realty taxes are a give-away as to valuation. When the tax people looked for prior tax returns from Dr. N, they found none. They called him in to meet him. It was a short visit — when the Doctor explained that the \$25,000 down payment came from his wife's family as a present to the newlyweds.

The moral is: Be prepared to explain the source of any large down payment in buying property. The size of the down payment reveals itself to the Government both on a tax return and in the records of the County Recorder which are often scrutinized by the Treasury Department. The tax man at the Federal Building looks at the tax return, page 3, for the items of realty taxes and mortgage interest and could then approximate the down payment. The tax man at the County Recorder's Office can look at the recorded mortgage instrument for the size of the debt and then look at the deed for the documentary stamps which are paid on the total value of the property and he then arrives at the amount paid down. At the Recorder's Office, these documentary stamps are helpful because usually the deed to the property does not state the total sales price. Believe it or not, the Government is not a snooper — but the tax checkers and special agents are well trained and intelligent.

BAIT #15

Will the Inventory of an Estate show up possible unpaid income taxes?

This year Dr. O died suddenly of a coronary. He was 36 years old, a Professor of Pathology, and relied on his \$7,000 per annum for his wife and family. All his life he never experienced any income tax headaches. But on his death his income tax problems suddenly came to life.

It all started 3 years before when he was honored with a \$25,000 prize in recognition of scientific achievement and given another \$9,000 for 3 additional years' future work in this field, receiving it at the rate of \$3,000 per year for 3 years. He actually paid no income tax on any of this money. When he died the Inventory of his Estate showed a cash sum of \$25,000 and nothing else. The Government is likely to call the widow in and put a restraint on the funds. The Government is interested in knowing how a Professor was able to accumulate \$25,000 cash. Actually, there is no income tax payable on the \$25,000 itself since it is a "reward" in recognition of the Doctor's past efforts. But the \$9,000 which was an "award" for future efforts, although already used up for living expenses, should have been reported on the Doctor's income tax returns for the past 3 years. So, after the widow retains a lawyer or an accountant and files 3 separate amended income tax returns reporting \$3,000 more per year and pays the three additional income taxes due and interest charges, and after months of delay, the matter will finally come to an end.

The moral is: Nothing is so sure as death and taxes — and even income taxes after death. Uncle Sam regularly checks inventories of estates for income taxes which may have been overlooked by the deceased.

See your tax advisor in the year the money is received to determine if it is taxable or exempt. Do not let the problem linger on.

BAIT #16

Are you a victim of the bank deposit method?

Dr. P last year had a crazy bank account that took flip-flops. His trouble was, he put everything in one commercial account — business receipts and everything else. Even \$5,000 was thrown into the account when the Doctor hit the jackpot on a super-doooper National quiz show. He sold the two truckloads of prizes, worth \$20,000 to the first taker for \$5,000 cash. The bank account and the Doctor's luck were riding high — that is until the photo of the beaming Doctor in the newspaper was seen by the local tax office. This year his return is checked thoroughly and the money from the prizes traced to his bank account. The Doctor had a "new" jackpot in a colossal amount of time spent by him and the tax people in going over his return and bank account. The Doctor was quickly informed that

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The Journal of the Maine Medical Association

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EDITORIAL

Stop Rheumatic Fever

Rheumatic Fever Committee, Maine Heart Association

Effective measures for the prevention of rheumatic fever are now available and the value of their proper use has been definitely established. "Stop Rheumatic Fever" is the slogan which has been adopted this year by the American Heart Association. The public will be informed of the advances which have been made in the control of this disease and public pressure to apply these measures will increase. Physicians who are approached by patients and their relatives must make the decision in each case after carefully evaluating the advantages to be gained while still remembering the warning "primum non nocere".

It is estimated that three per cent (3%) of untreated upper respiratory infections caused by hemolytic streptococci are followed by rheumatic fever. The importance of effective therapy in these infections cannot be overstressed. Ten days of antibiotic treatment,

preferably with penicillin, are required for effective prophylaxis. It should be stressed, however, that the indiscriminate use of antibiotics for all upper respiratory infections or "sore throats" is poor medical practice. Excellent outlines of the diagnostic criteria for rheumatic fever and of the measures to be used for its prevention have been prepared by the Committee on Prevention of Rheumatic Fever of the American Heart Association (1). These outlines also include a discussion of the clinical criteria for guidance in the diagnosis of hemolytic streptococcal respiratory infection.

The rate of recurrence of the disease process in an individual who has once had rheumatic fever (including chorea) is sufficiently high to justify a sound recommendation that such a person should receive prophylactic antibiotic medication throughout life. This plan should be followed until such time as new information on this subject renders the present recommendations invalid. It is obvious that such a program should be instituted only after the diagnosis is established with as great certainty as is possible.

1. These outlines are available at the request of any physician, from the Maine Heart Association, Inc., 234A Middle Street, Portland, Maine.

Across The Desk

IN SIX SHORT WEEKS

In six short weeks, Congress will reconvene, and the Administration is expected to ask Congress to get busy on its health program.

A dressed up version of the old reinsurance program, increased funds for Medical Research, sweeping changes in the Social Security Program — and appointment of

osteopaths in the armed services on equal status with medical doctors will come up. Your Senators and Representatives will be at home for the Christmas holidays — Talk to them — Write to them — Tell them what you think and why.

SHARP CUTBACK IN DRAFT CALL FOR DOCTORS PROBABLE

Defense Department call on Selective Service to furnish 297 physicians for February induction is to be trimmed this week to 150. Spurt in volunteers after draft call was announced recently, and particularly the weak response to Army's invitation to teen-agers to en-

list for 6-month training (thus reducing medical requirements) — these are reasons for cutback. Requisition for 119 dentists is not affected. Note: Enlistment of 6-month trainees is so scanty that Defense is passing up special orders relative to their medical benefits.

HEALTH INSURANCE FOR LOW-INCOME GROUPS

Government's role in reducing poverty was theme of opening session of recent Senate hearings on problems of low-income families. Health and medical care aspects, and how the insurance mechanism is

applicable to meet their challenge, figured prominently in testimony of HEW Secretary Marion B. Folsom, AFL's Nelson H. Cruikshank and other witnesses.

BLUE SHIELD BLUES

In writing an article, such as this, one is reminded of the pastor berating his flock for not attending Sunday services. Those who need to hear him most, are rarely present. In the same way, the physicians we would like to reach will probably not trouble themselves to read this paper. However, by scattering the seeds to the wind, they may take root.

The purpose of this article is to discuss briefly the philosophy of health insurance, in particular Blue Shield, and the role of the physician in its function and future.

All insurance plans must, of necessity, operate with certain basic principles, namely:

1. The insuring company must be able to determine in advance, how often a given insured event will occur.
2. The event must be uncertain of occurrence from the standpoint of the insured.
3. The policy holder must stand to lose financially by the particular event occurring.

From the foregoing, it should be obvious that all-inclusive coverage is, for all practical purposes, impossible. We must determine just what we wish to insure and to what extent.

As physicians, we must take the lead in anticipating and providing the types of benefits which best suit the needs of our respective communities. Such needs will

tend to change as time goes on and they must be measured realistically, on the basis of our professional opinion, and not only by what we feel the public wants. Today, there is an existing tendency to want complete "free" health care. But of course, this is impossible. Neither a government nor a voluntary program can do this. In the last analysis, someone must pay the bill.

At the June meeting of the MMA, a resolution was passed, urging the Associated Hospital Service to study and to put into effect, a second, or alternate Blue Shield Plan with increased premiums and correspondingly increased fees for the physicians — this plan to be sold to the high-income groups. It was the mind of some of the delegates that the present plan had priced itself out of the reach of those people we most wanted to assist, namely, the low-income group. And that further, if an alternate program were available, perhaps the present plan could be cut back, both in premiums and in physicians' fees in order to provide coverage for more of this low economic group.

Tentative plans would set the income limits for the higher income group at four and six thousand dollars. To be saleable, and, therefore, reach the maximum number of our patients, the *ideal* program would cover the physicians' fees in *full*. With increased fees, would these be so rarely unacceptable that the promotional advantages of selling the policy as covering the doctor's

bill in full, outweigh the questionable importance of retaining income limits?

The present plan is primarily surgical and obstetrical with the medical payments mostly fringe benefits. It is the desire of the Health Insurance Committee to make any new program more attractive to the internist and the general practitioner. What should be the fee for in-patient medical visits? What should we do about consultant fees? These are some of the problems facing us, about which we ask you to ponder and to send us your recommendations.

It would seem that by their very nature, most physicians resent insurance companies, fee schedules, forms or anything else which they feel, rightly or wrongly, comes between them and their patients. However, I submit that health insurance is going to continue to grow either because of us, or in spite of us. If we wish to have any control over the methods of this business, we must assume our rightful place in its planning and administration.

Unfortunately, those who wish to capitalize upon the shortcomings of any enterprise, have a much more receptive audience than those who list its virtues. It is far easier to demolish a structure than to erect one. However, if you have constructive criticism of the present Blue Shield Plan, suggestions for improving it,

or an alternate plan, inform the insurance committee or your society officers.

The day when the physician could remain in his ivory tower and ignore medical advances is long since past. In like manner, he can no longer ignore advances in medical economics. Just as we need physicians in medical research, so also is there a crying need for doctors interested in the economics of medicine in all of its phases. True, we are not trained as actuaries, insurance men, economists or as public relations experts. But unless we can find among ourselves, men willing to devote the time and energy to "specialize" in these fields, we are going to find ourselves more and more under the domination of lay personnel. Unfortunately again, no matter how well trained, how conscientious such a lay person may be, no one can understand a physician's problems as well as another physician. So it behooves us to stop living in the past, aloof from all around us, derisive of those physicians who since they are active in medical society affairs, we label as "politicians." Let us keep the practice of medicine the bright and shiny beacon it was meant to be. Then truly . . . "In the sight of great men, he shall be praised."

L. J. STITHAM, M.D., Dover-Foxcroft
Chairman, Health Insurance Committee

THE DOCTOR AND THE SOCIAL SECURITY FREEZE

Members of the Maine Medical Association have been, or very soon will be, handed by patients or have mailed to them, Form OA-D826 of the Bureau of Old Age and Survivors Insurance Agency, with the request that it be filled out and returned to the agency. This office realizes that this, at first thought, may seem to be "just another form to be filled out." This article is an attempt to explain the significance of Old Age Form OA-D826 and give a brief resumé of its intent and purpose.

In 1954, Congress enacted amendments to the Social Security Law to preserve retirement benefits of covered workers in the event of disability of severe enough degree to force retirement from gainful employment before the age of 65. Under the old law, such a period of unemployment caused a reduction in the amount of retirement pay the worker could draw at age 65, and in cases of prolonged unemployment might wipe out the pension entirely. The new provision makes it possible for the disabled person to apply for a "freeze" of his retirement credits as of the time he becomes unable to work. If found to be unemployed due to his disability, and otherwise eligible, his credits will be frozen until he either is able to return to substantial employment, or until he becomes 65, when he would draw retirement pay based on the actual credits he had earned before disabled.

The key figure in this new program is the medical

practitioner — because an applicant for the "freeze" must thoroughly substantiate his claim of disability within the intent of the law by adequate medical evidence. During the past six months, many Maine physicians have received requests from their patients for the evidence they needed.

In most instances, the government can make no payment for this evidence, since to do so would be using taxpayers' money to help an applicant prove his claim against itself. Of course, the physician may use his own discretion about charging his patient for any additional examination the request for evidence may involve.

Many of the medical reports received to date have been inadequate in providing definitive evidence, sufficient to enable the examiners of the applicants' files to arrive at a valid determination as to the degree of impairment involved. In many instances, additional requests for information have had to be sent out. This has meant extra, unrecompensed work for the doctors, as well as some strain, no doubt, on his good nature. It was felt that it might help to lessen the need for such requests in the future to briefly describe here what is needed in the medical reports to make possible valid decisions in these applications for disability "freeze."

The claim reviewers are guided by general standards recommended by an advisory committee consisting of experts in both the general and specialty fields of medicine. Within those standards, they review all the evi-

dence supplied, including the medical reports, to determine if the applicant is actually unemployed, mainly because of disability. Reference is made in the language of the Law to such factors as "inability to engage in substantial, gainful employment" in the "foreseeable future" by reason of an impairment "medically determinable" and which is expected to be of "long continued and indefinite duration."

Perhaps the best guide the doctor could have in supplying the necessary information, is the request, in large print, contained in the introductory paragraph of the form itself, as follows: "Please include sufficient detail (using accepted medical terminology) regarding history, clinical findings, and diagnosis to permit a reviewing physician to reach the same diagnosis as reached by the examining physician."

It is not sufficient, for instance, to say that a patient is "totally disabled by severe asthma." Such data as frequency of attacks, amount of emphysema, amount of effort required to produce dyspnea, etc., are needed to enable the reviewers to reach that decision or perhaps

to decide that the applicant still is employable. Similarly, a statement that the patient is severely disabled by rheumatoid arthritis is valueless, for determination purposes, unless it is backed by data showing major joints involved, degree or percentage of limitation of motion of limbs, approximate date of onset, etc. So, too, a statement that patient "has severe hypertension" does not help unless there is data as to diastolic pressure taken over a period of time (at rest), and such other evidence as will assist in arriving at a diagnosis.

In short, information in the medical records submitted should include such clinical and laboratory findings as are available, and the physician's careful estimate as to residual impairment of the applicant's physical capacity. Observance of these guides will result in fewer repeat requests for additional information concerning the same patient and will save the time of busy physicians.

WILSON H. MCWETHY, M.D.
Medical Consultant
Vocational Rehabilitation Division
 Augusta, Maine

REGIONAL LEGISLATIVE CONFERENCE

The Regional Legislative Conference of the Committee on Legislation of the American Medical Association was held in New York City, October 29, 1955.

These Regional Legislative Conferences are being held throughout the country for the first time, and so far, all have been well attended and considered very successful. They are an excellent method of bringing the problems concerned with medical legislation on the national level to members of our state and local medical societies. One of the chief purposes of these meetings is to make it possible to keep the individual physician better informed in regard to national legislative matters through state and county legislative committees. It is hoped that in this way, all physicians will become more interested and exert their influence in legislative matters pertaining to our profession. The American Medical Association realizes that the greatest power in our profession is the activity of physicians at local level, and the great problem is to get individuals and local groups to actively participate in this program. When one considers that in the last session of Congress, there were 11,900 bills introduced and 403 of these bills had medical implications, the necessity for action is very evident.

Many of the pending or left over bills from the last

Session of Congress were discussed. It was emphasized that the medical profession should whole heartedly endorse the Bricker Amendment to protect ourselves from the possibility of some form of National Health Insurance being thrust upon the people and the medical profession through a Treaty of Presidential Agreement. Another bill that is sure to come up in the opening Session of Congress is the granting of commissions to the osteopaths in the armed services. There was much discussion of the bills and reasons for opposing the bills concerning: Health Reinsurance and Mortgage Loans; Federal Aid to Medical Education, and Compulsory Disability Coverage under Title II of the Social Security Act. Other subjects were discussed which I will report in a detailed report at a later date.

One had the feeling at the close of the meeting that a lot of difficult legislative problems will confront the medical profession in the future and a lot of hard work is ahead for all. It is hoped that everyone will be willing to help when the call comes.

M. TIECHE SHELTON, M.D.,
Chairman Legislative Committee
 Augusta, Maine

WHITE HOUSE CONFERENCE ON EDUCATION — PORTLAND DIVISION

Introductory remarks were made by Dr. Harrison Lyseth, Superintendent of Schools for Portland and Dr. Herbert G. Espy, Commissioner of Education for the State Department of Education. The meeting was brought to a close by Governor Muskie, who made a short but pointed presentation of the major concerns of State Government with emphasis on balancing the needs

of state and the inter-relationships which must be considered between such budgetary needs concerned with institutions, highway requirements, education, etc.

Following the opening remarks, the group which numbered between four and five hundred were divided

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ANSWERING QUESTIONS



We all agree that \$1,000,000 is a sizable sum of money. At the end of 1955 Maine Blue Shield will have in excess of \$1,000,000 for services rendered by licensed physicians. In 41/2 years of operation Blue Shield has enrolled 140,000 Maine people. About 90 per cent of the doctors in Maine who serve the general public now participate in the program. These figures clearly indicate the important roll that Blue Shield is playing in helping to pay for a high standard of surgical and medical care in our state.

According to Dr. Novy, President of the Michigan Blue Shield Plan for 13 years: "Organized medicine in the U. S. has a formidable instrument in Blue Shield for maintaining the balance of control in the surgical-medical prepayment field, for influencing the competitive quality and scope of all of the coverages, and for providing the people with an honest, objective and professionally realistic standard of coverage." In the past few years medical-surgical prepayment insurance has rapidly grown into a multi-million dollar business. A large and ever increasing number of these dollars are received and dispensed by Blue Shield's competitors, free of professional control or recommendation. As Dr. Novy puts it, "It is imperative that the medical profession step in vigorously in today's prepayment developments to make its influence felt."

I feel it is appropriate that space in your journal be devoted to broadening doctor understanding of the Blue Shield program and its problems.

This column will come from the Blue Shield office and the intent is to answer questions and attempt to clarify those things about Blue Shield that seem to be misunderstood.

MEDICAL SERVICES

POINT TO BE STRESSED: No medical benefits for first three days of each hospitalization for medical care

Under the present Blue Shield Contract BSB (Blue Shield (Contract) B) medical services qualify for benefits when such services are rendered to a hospitalized bed patient only. Blue Shield benefits begin on the fourth day of continuous hospital confinement and end on the seventieth (70) paid day for any one member in any period of twelve (12) consecutive months. **THE PATIENT SHALL BE RESPONSIBLE TO THE PHYSICIAN FOR PAYMENT OF HIS CHARGES FOR MEDICAL SERVICES RENDERED DURING THE FIRST THREE DAYS OF EACH CONTINUOUS PERIOD OF HOSPITALIZATION.** No benefits are allowed for treatment rendered during the first twelve (12) months of enrollment for any condition existing at the date of application, or for which medical or surgical treatment or advice has been rendered within one (1) year prior to the date of application for enrollment. The above limitation does not apply to a newborn child whose parents were members at the date of such child's birth.

Are You Tax Bait?

Continued from page 364

the full fair market value of the merchandise to him — \$20,000.00 — was taxable. It was a "shocker" to learn that the Government ignored the \$5,000 he received from the extremely willing buyer and was required to pay tax on \$20,000 most of which money he never received. He had another jolt when the tax man looked with an inquiring eye at all of his bank deposits for the year showing a grand total of \$45,000 when the Doctor had only shown \$30,000 gross total on his return earned from his practice. From a simple bait of publicity, the tax men were attracted to the bigger bait lurking in his bank statements. From the initial bait, a secondary bait was revealed. From a routine field audit, where the agent assumes the honesty of the taxpayer, now the past returns will be turned over to the special agents of the Intelligence Unit as a possible fraud case if not sufficiently explained. Even accounting for the \$5,000 from the "lucky windfall," it left the Doctor with the problem of explaining the rest — \$10,000 of deposits — for the year. Forcing the taxpayer to explain is called the "bank deposit" method. This torment is actually a part of each investigation since bank deposits are business records. This method is rationalized by the Government as being a valid, reconstructed income. Dr. P is tormented for the next few months in kicking out the phony reconstruction and explaining this \$10,000 of deposits. This is what he comes up with:

- (1) \$3,000 of checks cashed by Dr. P as a favor for his patients. He felt he was far more justified in cashing them than the local saloon with, of course, the patient using the cash from the pay check to pay at least \$5 on his bill.
- (2) \$3,000 transferred from an old checking account in another city — money on which tax had been reported and paid 5 years ago when the Doctor had been living there.
- (3) \$1,000 of his wife's "rainy-day" savings deposited when the Doctor's bank balance dropped too low to cover checks that were already out.
- (4) A \$3,000 loan obtained from his bank and deposited to his account to pay for new x-ray equipment.

The moral is: Dr. P now looks at prizes and quiz programs on radio or TV with a jaundiced tax-eye before ever accepting them again. Dr. P deposits only his net receipts from patients in one commercial account and when he does cash their paychecks at the office, he immediately hustles to the Bank and trades the same checks in for cash. When his account is low, he pays his bills by money order. When he borrows money to buy equipment, he has the bank make out the check directly to the surgical supply house, completely bypassing his checking account. When he wants to close out an old checking account, he simply writes

checks against it to wipe it out without bothering the old bank to transfer the funds.

BAIT #17

Are you a victim of the net worth theory?

Three doctors attended the "birth of a group". There was Dr. Q, an internist, who had the land and building worth \$150,000 all paid for. Dr. R was a GP with a large practice as the core of the new group practice. Dr. S, an Orthopedist of international prestige, would be the "old" man of the group, although only 45, and he was willing to leave his post at the County Hospital and contribute his services as specialist and executive administrator. Neither Doctors R nor S were in a position to contribute any cash or property.

At the end of the first year, the group filed a partnership return, innocently called an "information return", but jammed full of financial information about the group by way of a balance sheet and profit and loss statement. It showed in the net worth, land and buildings worth \$150,000, owned by 3 equal partners. The group made a total net the first year of \$120,000 split \$40,000 apiece. In view of the income and assets on the partnership return, the Government checked out each partner's individual return, each for the first time. The GP and Orthopedist, who contributed neither property nor cash, cleared easily. However, Dr. Q, the contributor of the land and buildings, received the "net worth" test. It seems that he did not have his records for the past 4 years. By a fluke, an aide had thrown out some of his old cash receipt books and records when the Doctor told her it was O.K. to destroy a pile of new day books received in January from practically every surgical supply house and bank.

From the initial bait of high partnership income, the Government went hook, line and sinker for the secondary bait of inadequate bookkeeping to follow the trail of wealth. From a field check, it becomes a fraud check.

Because of the spotty records, the Government applied the net worth accounting method to reconstruct his income over the past 3 years and to see if that income tallied with his income as reported on the returns. They asked the Doctor for a list of his assets as of 3 years ago and as of now and figured out the increase. Then they looked at his tax returns as filed for the past 3 years to see what he had left after paying taxes. Then they wanted to know what his fair estimates of his living expenses were for the past 3 years.

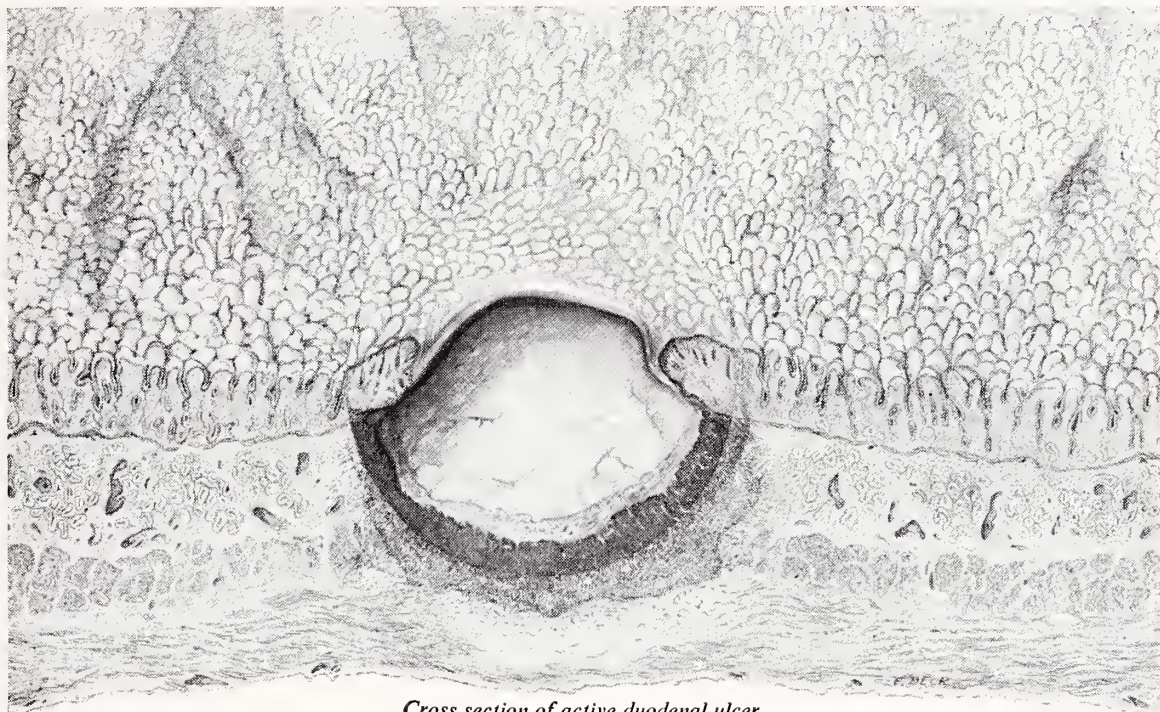
All of these figures fell into a neat formula:

$$\text{CHA} = \text{NAT} - \text{LEX}$$

This means *Change of Assets* should equal *Net after Taxes* minus *Living Expenses*. And if it does, the Doctor's tax returns have met the acid test.

The moral is: Keep your records intact for at least 4 years back — in your wife's jewel box if necessary — try the net worth theory on yourself once a year — and you may keep the tax man away.

PRO-BANTHINE® IN DUODENAL ULCER



Cross section of active duodenal ulcer.

Dramatic Remission of Ulcer Pain

Pain of ulcer is associated with hypermotility; the pain is relieved when abnormal motility is controlled by Pro-Banthine.

"In studying¹ the mechanism of ulcer pain, it is obvious that there are at least two factors which must be considered: namely, hydrochloric acid and motility.

"... our studies indicate that ulcer pain in the uncomplicated case is invariably associated with abnormal motility....

"Prompt relief of ulcer pain by ganglionic blocking agents... coincided exactly with cessation of abnormal motility and relaxation of the stomach."

Pro-Banthine Bromide (β -diisopropylamino-ethyl xanthene-9-carboxylate methobromide, brand of propantheline bromide) is a new, improved, well tolerated anticholinergic agent which consistently reduces hypermotility of the stomach and intestinal tract. In peptic ulcer therapy² Pro-Banthine has brought about dramatic remissions, based on roentgenologic evidence. Concurrently there is a reduction of pain, or in many instances, the pain and discomfort disappear early in the program of therapy.

One of the typical cases cited by the authors² is that of a male patient who refused surgery despite the presence of a huge crater in the duodenal bulb.

"This ulcer crater was unusually large, yet on 30 mg. doses of Pro-Banthine [q.i.d.] his symptoms were relieved in 48 hours and a most dramatic diminution in the size of the crater was evident within 12 days."

Pro-Banthine is proving equally effective in the relief of hypermotility of the large and small bowel, certain forms of pylorospasm, pancreatitis and ureteral and bladder spasm. G. D. Searle & Co., Research in the Service of Medicine.

1. Ruffin, J. M.; Baylin, G. J.; Legerton, C. W., Jr., and Texter, E. C., Jr.: Mechanism of Pain in Peptic Ulcer, *Gastroenterology* 23:252 (Feb.) 1953.

2. Schwartz, I. R.; Lehman, E.; Ostrove, R., and Seibel, J. M.: A Clinical Evaluation of a New Anticholinergic Drug, Pro-Banthine, *Gastroenterology* 25:416 (Nov.) 1953.

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County Society Notes

HANCOCK

October 12, 1955

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, Maine, on October 12, 1955. There were nine members and one guest present. The meeting was opened by the president, Dwight Cameron, M.D. of Northeast Harbor. The minutes of the last meeting were read and approved.

The speaker of the evening was Carl Irwin, M.D. of Bangor, who gave a very concise and stimulating talk on Intractable Pain. A question period followed.

November 9, 1955

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, Maine on November 9, 1955. The meeting was opened by the president, Dwight Cameron, M.D. The minutes of the last meeting were read and approved. Plans for future meetings were discussed. A letter was read from the Deer Isle-Stonington Chamber of Commerce, requesting assistance in obtaining a doctor and a dentist for Stonington. It was suggested to refer this to the Maine Medical Association.

The speaker of the evening was Robert Barrett, M.D. of Bangor, who gave a very interesting talk on the uses of meticorten in allergic diseases.

ARTHUR M. JOOST, JR., M.D.
Secretary

OXFORD

October 5, 1955

The annual meeting of the Oxford County Medical Society was held at Bethel Inn on Wednesday, October 5, 1955.

The following officers were elected:

President, John F. Hughes, M.D., Dixfield
Vice President, Norman M. Jackson, M.D., Rumford
Secretary-Treasurer, Peter B. Aucoin, M.D., Rumford
Councilors: John A. Greene, M.D., Rumford (1 year),
Willard H. Boynton, M.D., Bethel (2 years), and
Dexter E. Elsemore, M.D., Dixfield (3 years).

Delegates to the Maine Medical Association: Albert P. Royal, M.D., Rumford (1 year), and James A. MacDougall, M.D., Rumford (2 years), Alternates: David S. Broughton, M.D., Rumford (1 year), and Walter G. Dixon, M.D., Norway (2 years).

Charles F. Branch, M.D. of Lewiston was the speaker and gave an interesting paper on cancer.

PETER B. AUCOIN, M.D.
Secretary

WASHINGTON

October 28, 1955

A regular meeting of the Washington County Medical Society was held on Friday, October 28, 1955 at Calais, Maine with 26 members and guests present.

An excellent lobster dinner was enjoyed at DeMonts Restaurant following which the entire group retired to the new Calais Hospital for a meeting. S. R. Webber M.D., of Calais, president of the Hospital staff, welcomed the members of the first meeting of the hospital staff in the new hospital. E. B. Johnston, M.D., of St. Stephens, N. B., president of the Washington County Medical Society, then introduced Dr. Fernando Rubio of the New England Center Hospital. Dr. Rubio spoke on Jaundice. He spoke on the various types of Jaundice, their etiology, diagnosis and treatment. He said that approximately one-half were of the type that could be treated surgically. 85% could be diagnosed by liver biopsy and the other 15% could not be diagnosed by any method. Some medications such as Thorazine have been found to cause Jaundice. Dr. Johnston then introduced Edward Campbell, M.D., of the

New England Center Hospital who spoke briefly on hemolytic disease of the new-born. He covered the various types and mentioned that ACTH has helped in the treatment of erythroblastosis foetalis.

Martyn Vickers, M.D., president of Maine Medical Association, mentioned the coming meeting of the AMA in Boston the last part of November. He also discussed the possibility of a joint New Brunswick-Maine Medical Meeting in 1957.

The following officers were re-elected for 1956:

President, E. B. Johnston, M.D., St. Stephens, N. B.
Vice President, Hazen Mitchell, M.D., Calais, Maine
Secretary, Karl V. Larson, M.D., East Machias, Maine
Delegate to the Maine Medical Association, John Metcalf, M.D., Calais, Maine

Alternate Delegate, Oscar F. Larson, M.D., Machias, Maine

The members and their wives enjoyed a tour of the new Calais Hospital guided by Mr. and Mrs. Lewis Flagg. Mr. Flagg was present as administrator of the new hospital.

K. V. LARSON, M.D.

Secretary

YORK

October 12, 1955

The bi-monthly meeting of the York County Medical Society was held at the Wonderbar Steak House in Biddeford, Maine on October 12, 1955. Ruth Endicott, M.D. and James Johnston, M.D. were elected to membership.

Nominating Committee for the January Meeting: William T. Roussin, M.D., Andre P. Fortier, M.D., and Louis C. Lesieur, M.D.

Diabetic Committee: Melvin Bacon, M.D., H. Danforth Ross, M.D., Stephen A. Cobb, M.D., and Carl Richards, M.D.

A very interesting and instructive talk by Dr. Hanley on the subject "Thermo Nuclear Warfare" was enjoyed by all. There were 25 members and 2 guests present.

C. W. KINGHORN, M.D.
Secretary

Special Committees 1955 - 1956

The following Special Committees for 1955-1956 have been appointed by the President, Martyn A. Vickers, M.D., of Bangor:

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 Henry C. Thacher, M. D., 34 Court St., Auburn

Across The Desk

Continued from page 368

into discussion groups, five in number. The first discussion group considered the topic "What should our schools accomplish?" — the second group, "How can we get and retain good teachers?" — the third group, "How can we organize our schools more efficiently and economically?" — the fourth, "How can we pay for our schools?" — and the fifth, "How can we obtain a continuing support of public education?" After the groups had considered the respective topics for approximately three quarters of an hour, the discussion groups reconvened, and summaries were presented by recorders for each group.

It is impossible to summarize the points that were expressed, although the plea for increased salaries for school personnel was a constantly recurring point. Considerable discussion was held as to whether the schools should concern themselves "solely with the 3 R's or whether they should concern themselves with preparing children to fit into their roles as members of a complex society." While a minority expressed themselves to the extent that the 3 R's should receive increased attention, a greater number expressed themselves to the extent that the 3 R's are basic tools which should be utilized in developing good citizenship, human relations and other qualities of a well rounded individual who can be prepared for our complex society of today's and tomorrow's world.

The relationship between education and health per se was not specifically highlighted, although the question of greater consideration for facilities for the educational problems of the physically handicapped and the retarded child was asked, the matter of better screening facilities for hearing and vision and health inspections was also mentioned.

It might be well here, to list the stated purpose of the conference, five in number: (1) to bring about a more wide spread knowledge and appreciation of and interest in education. (2) to help to create continuing concern on the part of great numbers of citizens to face their responsibilities toward education, (3) to serve to bring about an analysis of the current condition of our educational system, (4) to provide examples of solutions to educational problems, an inspiration for an exhilarated effort in planning more active programs of school improvements, (5) to provide the basis for a report to the President of the significant and pressing problems in the field of education, and insofar as possible, to make recommendations for their solution. To these five, the Governor added a sixth which he summarized in the single word, Action.

EDWARD W. COLBY, M.D.
Health Director
 City of Portland

Necrology

WILLIAM HOLT, M.D.

1888-1955

William Holt, 67, physician of Portland for more than thirty years, died suddenly May 18, 1955 of coronary disease. He had been living with a heart condition for ten years and knew that some day one of the attacks would be his last, but did not let the thought color his enjoyment of life or interfere with the care of his patients. When he felt pain he took Nitroglycerin and continued with his work without complaint.

His own struggles in early life gave him a sound sense of human values. He was a real Horatio Alger character. He never knew his parents. His earliest recollection is of being in a foundling's home in Boston. He then was sent to North Waterford where he lived and worked until he was fourteen years old, when he tied his few belongings to the handlebars of the bicycle, which he had worked so hard to buy, and pedaled to North Bridgton. He worked his way through Bridgton Academy, and then through Bowdoin College. After College he pushed freight in the railroad yard at St. Louis, but always wanted to go to Medical School. He finally saved a few dollars and sold his much loved corner to get back East, and, after working in Boston for a short time with the Western Union, he returned to Brunswick and entered Bowdoin Medical School, from which he was graduated in 1919.

He served as Assistant Superintendent of the Providence City Hospital and Rhode Island General Hospital, following which

he was the school physician at Phillips-Exeter Academy. In 1924 he began the practice of Medicine in Portland, specializing in the treatment of disease by Radium.

Bill had a great flair for making and keeping friends. He was kind, generous, and fair minded. He had an irresistible and fine sense of humor which was at its peak when he was making an after dinner speech. He was one of Portland's foremost citizens.

His contribution to the City of Portland was large. When he ran for the Portland City Council he ran much ahead of the ticket, and served his term with distinction. Dr. Holt served as President of the Maine Cancer Society, The Portland Club, The Executive Club, and the Portland Medical Club. He was Secretary and Treasurer of the Cumberland County Medical Society. Other organizations to which he belonged included the American Medical Association, Maine Medical Association, American College of Surgeons, American Legion, Delta Kappa Epsilon Fraternity, and Oriental Lodge AF and AM of Bridgton.

Surviving are his widow, the former Marjorie Scribner of Bridgton, a son, William Holt, Jr., of New York City, and a daughter, Mrs. Earl C. Hotchkiss, Jr., of Bridgton, and two grandchildren, Bill and Connie.

ALLAN WOODCOCK, M.D.

EARL S. HALL, M.D.

1890-1955

Earl S. Hall, M.D., 64, died in Westbrook, Maine on August 19, 1955.

Dr. Hall was born in Holly, New York, September 22, 1890, the son of Orrin and Lena Wiser Hall.

He was graduated from Springfield College and attended Wesleyan before he entered the Bowdoin Medical School where he graduated in 1920. He served in the Navy during World War I.

He did his internship at the Maine General Hospital and was in general practice in Westbrook from 1921 to 1928. During this time he was in charge of the Diabetic Clinic at the Portland Dispensary and an adjunct in Internal Medicine on the Maine General Hospital Staff. Dr. Hall was interested in the Public Health in Westbrook and served as school physician.

In 1928 he did post graduate work in Orthopedic Surgery at the University of Pennsylvania followed by a service in the Hospital for the Ruptured and Crippled in New York City. Then he spent six months in post graduate study in Vienna. In 1930 he came to Portland to practice Orthopedic Surgery where he continued until a few years ago when he moved his office to Westbrook.

Dr. Hall was a member of the Masons, the American Legion, Portland Medical Club, Cumberland County Medical Society, Maine Medical Association and the American Medical Association.

He is survived by his widow, Margaret, a son, James W. and two brothers, Raymond and Harold of Rochester, New York.

HENRY P. JOHNSON, M.D.

WALTER A. RUSSELL, M.D.

1911-1955

Walter A. Russell, M.D., of Augusta, died at the Maine General Hospital in Portland on August 13, 1955.

Dr. Russell was born in Somersworth, New Hampshire, October 14, 1911, the son of Javan M. and Edith Legrow Russell. He received his B.S. degree at Wesleyan and was graduated from Cornell University Medical School in 1940. He interned at the Knickerbocker and Memorial Hospitals in New York City.

During World War II he served in the Army Medical Corps and was discharged as a major. He then studied radiology at the New York Hospital and Memorial Hospital in New York City.

He had been on the Maine General Hospital staff for five years before leaving in June, 1954 to become radiologist at the Augusta General Hospital. He was also on the staffs of the Augusta State Hospital and the Veterans Hospital at Togus.

He was a member of the American College of Radiology, the New England Radiological Society, the Maine Radiological Society, the American Medical Association, the Maine Medical Association and the Kennebec County Medical Society.

He is survived by his widow, Mrs. Ruth Eaton Russell; three sons, Robert, James and Richard; a daughter, Margaret; a brother Edgar of Chicago; two sisters, Harriet Russell of Detroit, Michigan and Gladys Russell of Yorktown Heights, New York.

Tuberculosis Abstracts*

Issued By The National Tuberculosis Association

Pulmonary Coin Lesion

*By John F. Higginson, M.D., and David B. Hinsbaw, M.D.,
Journal of the American Medical Association, April 30, 1955.*

The problem of the asymptomatic solitary, coin-shaped, pulmonary lesion was first fully presented in 1948, by O'Brien and others, who studied 21 patients in whom coin-shaped pulmonary roentgenographic shadows were seen on routine or survey chest roentgenograms. In all instances an exact diagnosis was impossible by clinical methods. The possibly serious nature of the lesions indicated an exploratory thoracotomy in order to establish a histological diagnosis. Eight, or 38%, of the 21 patients had bronchogenic carcinoma, and the others had tuberculomas or other nonmalignant lesions. The conclusion of this study was that all such solitary, benign-appearing, pulmonary lesions should be treated by exploratory thoracotomy rather than prolonged observation. Similar studies by other investigators show considerable differences in the selection of cases and in the types of lesions found at surgery. The percentage of malignant tumors (including bronchogenic carcinoma, lymphoma, metastatic carcinoma, and various types of sarcoma) that have been found has varied from 15 to 55%. The percentage of bronchogenic carcinoma only has ranged from 4.6% to 49%. The other common entities found have been tuberculomas and hamartomas.

Different authors have used varied criteria for selecting patients; however, all have agreed that the pulmonary shadows in question must be solitary, essentially asymptomatic, and reasonably circumscribed. It has also been agreed that the lesions must be in the lung parenchyma and must be inaccessible to biopsy except by exploratory thoracotomy. There are differing opinions on the inclusion of cavitating lesions and calcific lesions. However, the lack of agreement regarding the size of the lesion has been most apparent. Some authors have specified that the roentgenographic shadows found in their patients should not exceed 4 cm. but it is apparent from the published roentgenograms that many much greater in diameter have been included. The term "coin" implies definitely small, solitary lesions. In view of the differences in criteria of selection, different reports on the incidence of solitary pulmonary shadows, subsequently proved to be malignant tumors, are not surprising.

It is our purpose to emphasize the problem of the small, solitary, pulmonary lesion commonly referred to as a "coin lesion" with regard to case selection and to present a study in the evaluation of the many benign-appearing pulmonary lesions of this type being found in chest surveys. This has seemed especially important because of the common and persistent connotation of benignancy associated with the use of the term "coin lesion."

The patients in this study were all seen by the thoracic surgeon after a solitary, isolated, round or oval (coin-shaped), asymptomatic pulmonary shadow was found either on a routine chest roentgenogram or on a chest survey roentgenogram for tuberculosis. Exploratory thoracotomy was performed in each case. The following criteria for selecting the cases were carefully observed. 1. Only a solitary lesion was noted on the roentgenogram of the chest. 2. There was no evidence of attachment of the lesion to the chest wall. 3. The lesion was located in the lung parenchyma and was surrounded by aerated lung tissue. 4. There was no cavitation. Cavitation in any unidentified pulmonary lesion is simply another indication for surgical exploration. 5. The lesion was well circumscribed. 6. No adjacent pulmonary infiltration was noted. 7. No lesion was more than 4 cm. in diameter. If larger lesions were included, the series would be much greater; however, larger lesions are automatically considered to demand exploration. Difficulties and dangers arise in the procrastination that occurs with smaller, or coin-sized lesions. The 4 cm. limitation proposed earlier agreed with our experience. 8. There were no symptoms that in themselves encourage surgical exploration. 9. It was not possible to establish a histological diagnosis by bronchoscopy or by other means.

It is not feasible to give a detailed presentation of all 39 cases included in this study. In all instances the patients had many sputum studies, including cultures for *Mycobacterium tuberculosis*, tuberculin and coccidioidin skin tests, multiple chest roentgenograms, and bronchoscopy. The preoperative diagnosis in all cases was pulmonary coin lesions of an undetermined nature. There was no surgical mortality, and the surgical morbidity was low. Twenty-eight were in the Veterans Administration Hospital, Portland, Oregon and 11 were private patients.

The incidence of bronchogenic carcinoma in this series was 10.3%, which is higher than the 4.6% recorded in another study. The latter series, however, was drawn largely from a relatively young age group. It would seem that the older the patients, the higher the incidence of bronchogenic carcinoma.

One case of solitary melanoma of the lung was included in this series; no extrapulmonary primary source of this was found. With the inclusion of this case, the cases of patients with alveolar cell carcinoma and bronchogenic carcinoma, the incidence of malignant coin lesions becomes 15.3% of the total. It appears that the frequency of bronchogenic carcinoma in small circumscribed, pulmonary (coin) lesions is nearer to 10.3% than to some of the much higher percentages that have been reported. The high incidence of coccidioid granulomas probably reflects the fact that many of the patients have lived near areas where this disease is endemic.

The wisdom of surgical exploration and histological identification of these solitary, benign-appearing, coin lesions is evident. The possibility of primary bronchogenic carcinoma being present is sufficient justification for exploration. Until recently physicians usually observed these patients with a presumptive clinical diagnosis of tuberculoma or benign neoplasm for a long time and, unfortunately, some physicians still do. The danger of this is obvious. The roentgenographic appearance of the lesion or any combination of clinical and laboratory tests will not show what the histological nature or bacteriological threat may be in an individual patient. A coin lesion in the lung should be considered as one considers a small lump in the breast, i.e., as malignant until proved otherwise.

It is generally accepted that the proper treatment for a known tuberculoma is removal by surgery. It has been shown that many so-called tuberculomas contain viable tubercle bacilli. These tuberculomas can and do caseate, cavitate, and produce widespread pulmonary disease. Some authorities believe that approximately 25% of the untreated tuberculomas "break down." Of the lesions in this study, 31% proved to be tuberculomas. We believe that the presence of calcium in a coin lesion should not defer surgical exploration unless the patient is a poor surgical candidate with systemic disease or unless the lesion is less than 1.5 cm. in diameter and is solidly calcified. After the surgeon is satisfied as to the histopathological diagnosis, he may then perform whatever definitive surgical treatment is indicated. In view of the many chest roentgenogram surveys that are being conducted throughout the United States, it is important that all physicians be made aware of this problem in order that they may properly advise the patients referred to them from the survey centers.

Results in a series of 39 cases of solitary, parenchymal, so-called pulmonary coin lesions show that a significant number of these lesions are malignant neoplasms or tuberculomas and should, for this reason alone, be treated by exploratory thoracotomy and identification rather than by a period of observation. Prompt surgical attack on the so-called pulmonary coin lesion affords one of the best opportunities for early discovery and early treatment of bronchogenic carcinoma.

(The printing of Tuberculosis Abstracts is made possible by the cooperation of your local tuberculosis and health association.)

*Vol. XXVIII, December, 1955, No. 12

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VOLUME FORTY-SIX

THE JOURNAL

of the

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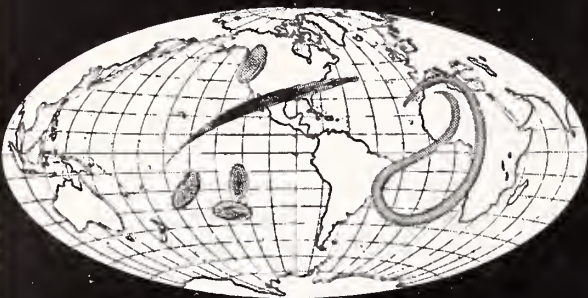
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J. Pediat. 44:386, 1954.

White, R. H. R., and Standen, O. D.:
Brit. M. J. 2:755, 1953.

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J. Pediat. 45:419, 1954.


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